THE RECONSTRUCTION OF RELIGIOUS BELIEF



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THE RECONSTRUCTION OF

RELIGIOUS BELIEF

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W. H. MALLOCK

AUTHOR OF
"IS LIFE WORTH LIVING?"



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In two volumes which I have published during the last four years. I have in different ways attempted the same two things-firstly, to show the futility of the methods employed by the religious thinkers of to-day in their attempt to liberate religion from the negative conclusions of science; and, secondly. to point out, or rather suggest, the outlines of a method which, for this purpose, is likely to prove more profitable. In Religion as a Credible Doctrine, the treatment was purely argumentative. In The Veil of the Temple the questions dealt with were exhibited in their relation to the life of every day, and the interests and characters of. people who are anything but professed thinkers; but in both of the volumes the negative position was dealt with at greater length than the positive. In the present volume these proportions are reversed. It begins, indeed, with a short summary which exhibits the strength of the negative arguments, but the larger part is occupied with the attempted work of construction.

I agree with Hume that, in argument of the present description, rhetoric is out of place, and

none will be found here. But since the disposition of the reader to understand an argument fairly depends, when subjects such as the present are concerned, very much on his conception of what the writer's sympathies are, I quote here some verses from The Veil of the Temple, which, though they there had a dramatic propriety naturally wanting here, will give some idea of the writer's view of a situation into whose confusion he is here attempting to introduce some order. The verses are supposed to have been suggested by a certain passage from Nietzsche, in which he describes the desire of the philosopher to follow Truth, in spite of the possibility that it may, like Hamlet's ghost, be merely tempting him to his destruction.

"Here, where the sailless waves are pale and hoary, Strayed from my kind in this undreamed-of land. What do I see on yonder promontory— What gracious thing of wings and whiteness stand? 'Hear me and heed, thou radiant child of glory. Help me, and take and guide me by the hand.

"'O form divine, with limbs aglow From heaven, I hold thy hand and kneel. But what is this? Thy brows are snow, Thy hands are stone, thy wings are steel.

"'The shining pureness of thy face Has not the peace of paradise; Those wings within the all-holy place Were never folded o'er thine eyes.

"'And in thine eyes I see no bliss, Nor even the tenderness of tears. viii

- I see the blueness of the abyss, I see the icebergs and the spheres.
- ""Angel whose hand is cold in mine,
 Whose seaward eyes are not for me—
 Why do I pray for wings like thine?
 I would leave all and follow thee."
- "'O rash one pause, and learn my name;
 I know not love, nor hate, nor ruth.
 I am that heart of frost or flame,
 Which burns with one desire—the Truth.
- "'Thou shalt indeed be lifted up
 On wings like mine 'twixt seas and sky:
 But canst thou drink with me my cup?
 And canst thou be baptized as I?
- "'The cup I drink can only rouse
 The thirst it slakes not, like the sea;
 And lo, my own baptismal brows
 Must be their own Gethsemane.
- ""Across the paths where I must go,
 The shuttles of the lightning fly
 From pole to pole, and strike, nor know
 If Christs or kingdoms live or die.
- "The sightless sight will glaze my eyes
 Of those that neither wake nor sleep,
 As down the stadium of the skies
 The eyeless systems lean and sweep.
- "Canst thou endure the worlds of fire,
 The worlds of snow? or bear to mark
 On each some ratlike race expire,
 Which cannot leave its sinking barque?

- "'How wilt thou bear the creeds that bleat
 Like starving sheep from frozen downs—
 The eyes that trust the blinding sleet,
 The anthems that the thunder drowns?
- ""O you for whom my robes are white,
 For whom my clear eyes in the gloom
 Are lights—you who would share my flight,
 Wait for the end. I know my doom.
- "I shall become the painless pain,
 The soundless sound, as deaf and dumb
 The whole creation strives in vain
 To sing the song that will not come.
- "'Till maimed and wingless, burnt and blind,
 I am made one with God and feel
 The tumult of the mindless mind
 Torn on its own eternal wheel.""



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T

TWO FALSE METHODS OF APOLOGETIC

In order to live, not merely a life that is good, but a life that is healthy, vigorous, civilized, and even enjoyable, every one must have in his mind some background of belief with regard to the nature of man and the meaning of man's existence. Further, if this belief is to fulfil its functions properly, it must not be, for the majority of people at all events, a goal which requires to be reached by any private intellectual struggle; it must be normally assumed as a starting-point of practical judgment and of action.

When, however, it happens, as is happening at the present day, that a life-belief, previously dominant and accepted as axiomatic, ceases for various reasons to be accepted thus any longer, it becomes inevitable that men, in order to recover their health, should do what is a sign of their disease but is the only available remedy for it. That is to say, they must consciously and individually attempt, either to justify the old belief by supplying it with new foundations, or build up some new belief which may possibly take its place. This is what men are attempting all over the world to-day; but they have been doing so thus far with very little success. Their failure has mainly been due to the employment of wrong methods. The aim of the present volume is to give them the outlines of a better.

Let me, though its features are familiar enough to all of us, describe the existing situation in more particular terms. All that portion of mankind to which we ourselves belong has developed its moral and intellectual, to say nothing of its material, civilization under the influence of a belief in Christianity. Of Christianty as a religion of miracle, I propose to say nothing here. We will content ourselves with considering the three doctrines which are at the root of it—namely, that the universe is over-ruled by some supreme intelligence, who has for his special object the highest good of man; that each man is a selfdirecting personality, answerable as such to the supreme intelligence for his conduct; and that his life here derives an infinite importance from the fact that it will be prolonged and completed for better or worse hereafter. These doctrines were, till a comparatively recent time, accepted without question by an overwhelming majority in all

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civilized countries. But with the extraordinary advance in our knowledge of the sensible universe which has taken place during the last hundred years, they not only seem to have been deprived of all the positive evidences in their favor, but have also been confronted with a new conception of existence which seems to have rendered them in their very nature incredible. The practical result at the present time is this. Even those who are satisfied to let these doctrines go are conscious of some sort of loss, and desire to find a substitute for them: while others, who believe that no substitute is possible, are looking about for some means of defending them which may justify them in retaining their faith or help them in getting it back again.

It is to this latter class alone that the present volume is addressed—a class whose position I will illustrate by an extreme but typical example of it.

This shall be the case of a Christian—if we like, we may suppose him to be a clergyman—who is at once a sincere believer and a man of education and intelligence. He is a man who, like many others, can say without affectation that he has known God as a direct spiritual experience, and that the existence of God and of his own soul as created by God is a fact of which he is as absolutely certain as he is of the existence of London. At the same time such a man cannot help being aware that the modern study of nature has revealed to us facts

of its own with which his religious certainties cannot be well reconciled. Nature, which for him is the work of an all-wise goodness, is exhibited by science as full of imperfections and cruelties. His own consciousness-his soul-which for him is an imperishable entity, is exhibited by science as a function of his perishing body. Now being, as we suppose him to be, an educated and thinking man, he cannot thrust science altogether on one side. Whenever, in writing a sermon, he turns on the electric light, he has evidence before him that the methods of science are sound and many of its conclusions, undreamed of in his father's days, are correct. He is bound, indeed, to agree with Herbert Spencer that "science is simply a higher development of common knowledge, and that if science is repudiated, all common knowledge must be repudiated along with it." Yet since, as at present interpreted, the facts of science collectively are at variance with the facts of which he is himself most certain, he is bound to assure himself that science must be wrong somewhere; and strong in this conviction, he might wish to ignore the enemy. Theoretically, he could afford to do so; but he finds, practically, that he cannot. Its opposition, though it does not weaken his faith, molests it, like a devil in the desert disturbing a hermit's prayers; and knowing that to others it is far more formidable than to himself, he is impelled for their sake, as well as for his own, to face it. Armed, then, with the assumption that science must be wrong some-

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where, he addresses himself to his task, which is simply to find out where.

A convinced believer of the kind just described is far from representing the whole or even the majority of those to whom I venture to hope that the present volume may be acceptable, but he represents them at all events in the fact that he desires to defend belief. He also represents a class the importance of which exceeds its numbers; for it is the class from which most of our professed apologists spring—the men whose methods, in dealing with scientific difficulties, mark the general level of apologetics at the present day. Let us consider what their methods are.

We need not quarrel with such men because, in defending beliefs, the truth of which they assume at starting, against a science which seems to conflict with them, they assume some error in science before they have begun to look for it. This procedure, though it has its drawbacks, is nevertheless unavoidable. All that concerns us is the manner in which the search is made. And it is here, at the very outset of their task, that our apologists go astray. Their search, however honest, is prosecuted in wrong directions, and the more industriously they seek the further they are from finding.

Stated briefly, what happens is this. The scientific explanation of existence conflicts with the religious explanation because it exhibits existence as a single necessary process, man being a momentary product of it, God being the process as a whole,

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and no personal relation between these two being possible. Such being the explanation which our apologists are pledged to invalidate, they seek to invalidate it in one or other of two ways, which we may call respectively the clerical way and the philosophic. The clerical way is to scrutinize science in detail, with a view to showing that the process which science represents as automatic would break down at this point or at that if it were not for the help and interference of a living power external to it. The philosophic way, which is now growing in popularity, is to accept the scientific explanation as complete within its own limits, but to reduce it to insignificance by means of a system of idealism, according to which the entire subject-matter of science—namely, the physical universe, our own brains included—is a dream which owes its existence to our own immortal minds.

Now both those methods, however different otherwise, have the same immediate object. They both of them aim at showing how little science can explain to us, without any previous endeavor to understand how much. Herein lies the fundamental error of both. If we wish to realize clearly how little science can explain to us, we must set ourselves to realize clearly how much it can explain first; and if the apologists of religion will only have the courage to leave their faiths at home, like a wife whose fidelity they can trust, and consider science for a time without any direct reference to

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them, they will not only see that the defects, which at present they impute to it, are imaginary; but they will also gradually detect in it defects of a deeper kind, a patient consideration of which will be far more serviceable for their purpose.

What these deeper defects in the scientific explanation are—in what ways the doctrines of religion may be justified as a necessary supplement to it—and in what ways the contradiction between the two may be reconciled, or at all events rendered intellectually tolerable—are the questions to which most of the present volume will be devoted.

It will be necessary, however, to preface its main or positive argument by a plain though short exposition of the reasons why both the methods—the clerical and the philosophic equally—at present adopted by the apologists of religion must be abandoned. The reasons for abandoning the clerical method can be explained in a short chapter. The reasons for abandoning the philosophic method will detain us somewhat longer.

H

THE CLERICAL ATTACK ON SCIENCE

THE clerical method, as employed at the present day, is a continuation, modified to suit circumstances, of the method which sprang, like Minerva, from the head of the Christian Churches the moment the voice of science first made itself heard. Its character will be best explained by historical illustrations of its employment.

The first great blow, generally felt to be such, which science inflicted on religion as then understood was that which destroyed the old geocentric astronomy. It was felt at once that if the earth were merely a paltry ball, wheeling and spinning with other balls round a body incomparably larger, the Deity's great white throne on a super-terrestrial firmament, with the localized court of heaven and other allied conceptions, sank to the level of symbols which, if treated as facts, were absurdities. Consequently, the entire theological intellect of Europe was occupied for generations in attempting to prove that Galileo was wrong, and that the heliocentric astronomy was a damnable and grotesque error. The next great blow came from modern geology.

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which was felt at once as a menace to the doctrine of direct creation, and accordingly the Churches attacked modern geology no less vigorously than they had attacked modern astronomy. Then came a third blow of a yet more staggering kind—namely. that inflicted by the discovery of the process of organic evolution, which was felt to be fatal to the doctrine of the direct creation of man, as geology was to the doctrine of the direct creation of worlds. And this has been followed, during the last twentyfive years, by other discoveries relating to brain and consciousness, the origin and reproduction of life, and the ultimate constitution of matter, in all of which a tendency is detected by the clerical mind to identify man's soul with the organic life of his body, and the organic life of his body with the general process of the universe. And at each of these latter stages the old drama has repeated itself. The clerical party has endeavored to convict science of falsehood. The entire principle of Darwinism was denounced from a thousand pulpits as the dream of a fool, which was no less absurd than impious, and since then an army of apologists have taken their stand on the doctrine that consciousness is essentially a something distinct from matter, and that organic matter is, as a parallel fact, miraculously different from the common stuff of the universe.

And what has been the result of this long series of onslaughts? Science advances slowly. Most of its great discoveries have to pass through a

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period during which their admitted and unavoidable incompleteness can be made to pass muster with many as a disproof of their truth; and the apologists have sometimes enjoyed the semblance of a passing triumph; but the final issue of every engagement has been the same. The clerical party has suffered an ignominious defeat, and has had to admit on its knees what it set out to deny. was the issue, as we all know, of its war against modern astronomy; such was the issue of its war against modern geology; and such has been, or is being, the issue of each successive action in its campaign against the sciences which bear upon human life. Thus all the special features by which it attempted to show that the organism of man is distinguished from that of the higher animals have been ultimately found to exist in the higher animals also. So, too, the famous contention that thought must be distinct from matter, because matter and consciousness are essentially disparate things, has at last, as we shall see presently, been robbed of its apparent force by the discovery that mentation may take place apart from consciousness altogether, and that thought, which is unconscious and consequently impersonal, is a much more extensive process than thought which is personal and conscious. It remains for us to notice one incident The doctrine that organic and inorganic phenomena are discontinuous, and that therefore the former must have owed their origin to a miracle, was based by the clerical apologists on

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what they took to be the established fact, that the simplest organic cell was possessed of a certain activity to which nothing analogous exists in the brute inorganic atom. And now what is happening? The inorganic atom—the brute lifeless unit —is appearing as a unit no longer, but as a microcosmic cell itself, and is exhibiting those very processes on the demonstrable absence of which the clerical defenders of religion had elected to take their stand. The history, in short, of this school of apologists may be summed up by saying that whenever its members have united to deny, to denounce, to ridicule any scientific discovery of obvious and far-reaching importance, that discovery has been on the eve of being placed beyond all doubt. Driven, as this party has been, from one rallying-point to another, it has found each successive position as untenable as the last.

Such an unbroken series of failures, all of them identical in kind, might have taught those who have experienced them to suspect that their attack miscarries, because they are pointing their guns in a radically wrong direction—that they fail to discover the "rifts" or "gaps" or "breaks" through which they hope to see the divine interference shining, for the simple reason that no such rifts exist—that they fail when they attack science, as they do, on its own grounds, because man and the universe, when studied as science studies them, neither can have, nor require to have, any other explanation than that which science actually or po-

tentially offers us, this explanation being summed up in the principle with which science starts as its postulate, and which it verifies as its last conclusion, that all phenomena, from the stars to the thoughts of man, result from a single system of interconnected causes, or are so many modes of a single undivided substance, which are all alike transient and all equally necessary.

To the man possessed of strong religious beliefs. such a conclusion doubtless must, as it stands, be shocking; but in proportion to the sureness with which these beliefs are held by him he will be sure also that no facts, however seemingly inconsistent with them, can, if proved to be facts, be inconsistent with them in reality. If, therefore, when tested by the methods of scientific observation. which are merely, as we have seen, the methods of common knowledge developed, the scientific explanation of the universe is seen to be self-sufficient, he gains nothing by trying to persuade himself that it is less self-sufficient than it is. The only reasonable course for him is to grasp his nettle boldly and surrender himself to the guidance of science, let it carry him where it will, trusting that its facts will ultimately coincide with his religious faith, without any effort on his part to tamper with them as he goes along. Let those apologists, then, who have hitherto, wholly or partially, relied on what I have described as the clerical method of apologetics, consent, provisionally at all events, to lay that method aside and

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adopt the explanation of science precisely as science gives it to us.

What this explanation is, as given to us at the present day, is very imperfectly understood by most of those who attack it. I will give a brief account of its most important features.

The sum of things accessible to ordinary knowledge was supposed, till very lately, to consist of three separate elements—namely, the inorganic universe, organic life, and the mind. The first was regarded as made up of "brute matter." into which had been introduced from without a certain principle of motion; the second was regarded as due to the presence of some further principle absolutely wanting except in organic bodies; and the third—the conscious mind, and the human mind especially—was regarded as being, in virtue of its very nature, even more distinct from the principle of organic life than the principle of organic life is from matter and material movement. The result of the later progress of scientific discovery has been to show us that these sharp distinctions between the three elements are imaginary.

With the doctrine that the earth was developed from matter in a simpler form, by a process of slow evolution, instead of by a series of miracles, not even clerical apologists any longer quarrel. They are ceasing to quarrel also with the doctrine that organic life, human and animal equally, has its origin in the simple organic cell. On accepted conclusions such as these it is needless to insist

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here. In this connection all that requires to be mentioned is that, as I have said already, the supposed essential differences between the simplest living matter and the matter which is called lifeless are now disappearing in the light of recent discoveries as to what the ultimate structure of matter and atoms is. Atoms, says Sir Oliver Lodge, just like organic bodies, "instead of having been manufactured (once for all) in an infinitely distant past, appear to be disintegrating, and therefore necessarily reforming here and now"; and we at last see that fundamentally the organic and the inorganic are "one."

Now thus far, apart from mere questions of evidence, there is nothing to provoke incredulity in the mind of the ordinary man. The only point which will strike him as presenting any inherent difficulty is the break, which seems to be impassable, between the brain-stuff and the conscious mind. And that something occurs here which is altogether perplexing was the opinion even of scientists such as Huxley and Tyndall. They looked on the brain and consciousness as essentially the same fact; but in the brain matter exhibits itself under two aspects, whereas in every other "form of complication" it exhibits itself under only one. Why, then, they asked, should the brain alone be "yoked to this mysterious companion, consciousness"?

Since the days when they used such language the situation has doubly changed—in one way, be-

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cause men have had time to reflect on the problem; in another, because they have made certain new discoveries relating to it.

The wav in which it has been changed by more mature reflection is as follows: If we consider the nature of our knowledge, we shall all of us agree with Descartes that our first and fundamental certainty is that of our own existence. Our next certainty is the existence of what we call the material world. Now in the order of actual things, though not in our personal consciousness, the fact that lies nearest to ourselves, according to our present knowledge, is the fact that the self of each of usthe thinking and feeling "I"-is a mental and material existence at one and the same time; and if only men could envisage the processes of their own brains, and if they paid no attention to matter of any other kind, their normal conception of matter would be thought visible and extended. The conception of thought as existing apart from brain would be like the conception of breathing as existing apart from lungs. We should see the brain think, as we see a friend smile or frown; and in tracing the connection of the brain with the other parts of the organism, and the connection of the organism with the matter of the inorganic universe, what we really should have to explain, in relation to our own certainties, would not be the presence of consciousness as the counterpart of the matter of the brain, but what at all events seems to be its absence from matter when arranged otherwise.

The old way of putting the problem is, therefore, thus inverted, and, according to popular opinion, the mystery involved in it should disappear; for that thought should be absent from matter is, according to popular opinion, merely what we all expect, and no explanation is required of it. Popular opinion is, however, here in error. A problem remains, whether we call it a mystery or no; and a solution of it has been supplied, during the past twenty-five years, by one of the most important discoveries in the annals of advancing knowledge. This is the discovery that, contrary to all traditional opinion, individual consciousness and mind are by no means co-extensive and identical, but that, though without mind there can certainly be no such consciousness, such consciousness is by no means essential to the existence and the operations of mind—that the larger part, indeed, of the mental life of each of us, with its memories, affections, reasonings, and purposive actions, lies as much outside the sphere of the conscious Ego as the process of digestion does or the growth of our nails and hair. That such is the case has been shown beyond all doubt by the study of the brain, of hypnotism, and of mental pathology, which has taken place during the last quarter of a century, and which, fortified by a series of innumerable observations and experiments, has resulted in what is practically a new psychological system.

In this way the chasm which seemed to yawn

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between brain-matter which is known to us in the form of conscious thought, and matter which is not "yoked to this mysterious companion, consciousness," has been filled up by matter in a third and intermediate condition—namely, matter which is not egotistically conscious, but which, nevertheless, thinks.

The division, therefore, between mental and merely organic life has disappeared like the division between organic matter and inorganic, and the three strata of things—the lifeless, the organic. and the mental-have thus been fused into one continuous whole. That is to say, we have, in a gradual and unbroken ascent, first, matter commonly called lifeless, but really consisting of atomcells full of inward activity: then, matter which lives in the sense recognized by the biologist, but which is by the biologist not recognized as thinking; then, matter which thinks, remembers, and even purposes—which performs the functions of mind — but without personal consciousness; and, lastly, matter which is mind, with a personal consciousness emerging from it.

In spite, therefore, of all incompleteness of detail (and it would be idle to expect that we can ever exhaust reality), science presents us with a descriptive or quasi-pictorial record, already practically complete in all its salient features, of a process which, beginning, let us say, as the movements of some cosmic nebula, results at last automatically in the mind and the personality of man. I call

this a descriptive record rather than an explanation because, though the final result—namely, our own conscious existence — is primarily known to ourselves in subjective terms of consciousness, the process resulting in this is, as dealt with by science, a something which is observed from without, not comprehended from within. This remark applies to invisible force just as much as it does to tangible mass; for force is known to science only through its observed effects, and is in itself like some boxed-up spring or weight, of whose nature we know nothing except what we are able to infer from observing the movements of some visible piece of clock-work which it actuates. The scientific presentation of existence has, then, its obvious limitations, and it is only with these limitations that the apologist who has attacked it hitherto, is asked, provisionally at all events, to accept it as unassailable

He will very likely answer that he cannot accept our invitation, because the claims of science, even as thus limited, are bound to result in a system of pure materialism. We shall presently see that this statement is quite untrue. It must, however, be admitted that the scientific presentation of things, though it does not result in materialism, does result in something which is to the defender of religion in one respect just as objectionable, for it gives us from first to last a system of pure determinism. One of the principal reasons why materialism is inconsistent with the

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doctrines of religion is not that it represents our minds as the products of something that is not mind, but that it represents our wills as determined for us by something that is not ourselves. Whether we are the puppets of outside matter or the puppets of outside spirit, our position is, from the religious point of view, just as hopeless in the latter case as in the former; and to reduce us to puppets of some sort or other, by linking our whole lives to general process of the universe, is a necessary outcome of the whole scientific scheme. But to recognize that a doctrine is disagreeable is not to prove that it is untrue. Let us for the moment be content to accept the fact that, so long as it is tried by ordinary scientific tests, the scientific doctrine is invulnerable; and let us go on to the question of whether we can undermine it by philosophy.

3

III

THE PHILOSOPHICAL ATTACK ON SCIENCE

What I shall try to make plain to the reader, in this and the two following chapters, is that the philosophical attack on the more extreme claims of science fails, as at present conducted, even more completely than the clerical, though it fails for a different reason. The clerical arguments fail because science repels and shatters them. The philosophical arguments, on the contrary, fail because science absorbs them, consolidating its position by means of what was meant to destroy it.

The nature of this result, which will have to be described in detail, can be made generally intelligible by a simple and familiar illustration of it. I refer to the attack on science on the ground that it is a system of materialism.

Let us first remark, then, that the time-honored word materialism has two senses, which unluckily are often confounded. It may mean either a certain conception of what matter is, or it may mean the doctrine that matter, as thus conceived, is everything. The conception of matter in question is one which, for ordinary purposes, is the work-

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ing conception of every one. It is shared by the sublimest idealist with the drunkard at the street It is a conception of matter as a something possessing in its own substance all the qualities by which we ourselves know it, such as color. smell, hardness, softness, and so forth-a something which is the very type of the homely, the non-mysterious, the understandable—a something about which in most of its forms we all of us know everything; and of the things known about it. one of the most obvious is the fact that it possesses in itself nothing like life or mind. Naturally, then, 'a man, whatever his scientific qualifications, who started with matter as conceived of in this popular way, and then undertook to present us with life and mind as the products of it, might easily be convicted of the crudest of self-contradictions, and his doctrine might be called materialism, as a just term of reproach.

Now many men of science, when science was yet in its infancy, were doubtless betrayed into a materialism of this precise kind, which even the criticism of the pulpit was not incompetent to expose. But their error lay not in the science by which they were distinguished from their critics; it lay in the conception of matter which they and their critics shared. Since the days, however, when the onslaughts on science as a system which deduced life, with all its ceaseless activity, from a substance essentially inert, were justified by the circumstances of the case, two things have hap-

pened. Not only has science shown that, considered as a pictorial fact, matter is never inert in any form or condition, even a brick being the theatre of a greater internal activity than any that a philosopher is conscious of in his own head; but philosophy has shown that the old conception of matter, though still valid as ever for all practical purposes, has no more relation to the actual truth of things than the old conception of the sun's rising and setting has, which for practical purposes remains equally valid, but which every child knows to be in itself an absurdity. Philosophy has shown us that all those familiar qualities by which matter is revealed to us, and which were once attributed to itself, do not reside in itself and cannot possibly do so, but are merely so many effects produced by it in our own consciousness. One stock illustration of this fact will be sufficient for us. The redness which a guard or an engine-driver attributes to the glass of a signal-lamp cannot in reality reside in the glass itself. It obviously resides in the vision of the man who looks at it; for the glass which is red for most men, for colorblind men is green. And to every quality which makes up our working conception of matter the same argument applies. All these qualities are effects produced in ourselves by a cause of which, in itself, we do know and can know nothing, except that it cannot be what we commonly call material

What, then, has been the result of the establish-

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ment of this philosophic principle in respect of the claim of science to deduce life from matter? Has it been what was hoped for by those who imagined, as defenders of religion, that this doctrine of life could be discredited by arguments drawn from the fact that it was once associated by its exponents with a materialism now exploded? Has it done anything to weaken the scientific doctrine that the individual life is the necessary and dissoluble product of a necessary process of some sort, external to and unalterable by itself? On the contrary, the refutation of materialism as a conception of what matter is, has, instead of weakening the above doctrine, strengthened it by eliminating the one element in it open to reasonable objection—namely, the assumption that matter is known to be inert and dead, or even the assumption that it is less active than mind.

Thus the scientific doctrine which religion desires to invalidate, that man is the passing product of a something external to himself, into which he returns at death but with which he can have no dealings, and as to whose inward character he can gain no definite knowledge, emerges from its battle with philosophy changed in one way only. It has appropriated, instead of succumbing to, the weapons that were directed against it. It is no longer a doctrine of mere empirical science; it has become a doctrine of mental philosophy also.

I have given a prominent place to the above philosophic incident, not because it turns on the

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arguments which specially concern us here—for these are far more ambitious than a mere refutation of materialism—but because it will prepare the reader to understand the results on science of the newest class of criticism by which our philosophic apologists are endeavoring at this moment to undermine or to minimize its authority.

IV

IDEALISM VERSUS SCIENCE

In order to appreciate the arguments which are at the present moment being used against science by the philosophic apologists of religion, it will be necessary to consider certain of the salient features by which modern philosophy generally, as distinct from science, is characterized.

The primary distinction between physical science, as such, and all the philosophic systems by whose aid it is being now assailed, consists of the fact that in seeking to explain existence, the philosophies start with looking inward and science starts with looking outward. Science seeks to explain the human mind through the universe; the philosophies to explain the universe through the human mind. To the philosophies which are here more particularly in question—namely, those which have developed themselves since the days of Kant and Berkeley, this latter observation applies in a special way.

"Modern astronomy," exclaimed Kant, "has annihilated my own importance." He was merely giving voice to a feeling which had since the days

of Galileo begun to disturb the minds of all thoughtful men, and which doctors of the Church, Roman and Protestant alike, had expressed independently in almost the same phrases. "If," said a cardinal, "the earth is merely an insignificant starone among many, which are probably all inhabited —it becomes incredible that God should have died for man." Accordingly, as has been well observed by a critic of modern speculation, the course taken by metaphysical philosophy, from the middle of the eighteenth century up to the present time, has been largely determined by a desire on the part of the philosophers to win back for man the dignity which he seemed to have lost, to turn the tables on a universe whose bulk seemed to insult him, and "revenge him on the astronomers" by demonstrating that his own mind was, after all, "the real constructor of nature."

They sought to achieve this object by pursuing two inquiries, one relating to the means by which the human mind knows, the other relating to the character of the external world known by it. With regard to their conclusions they differed among themselves greatly, and fancied that they differed a great deal more than they did; but they were with regard to their starting-point all of them in complete agreement. They all assumed—or, as they preferred to say, they "posited"—the individual mind as a sort of mental Melchisidec, without father, without mother, without descent; and they then proceeded by interrogating their

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own consciousness to discover what the nature of this mind is.

How does it get its ideas? That was their first Does it get them from its experience of the universe whose brutal bigness affronts it? Or is it born with them? Unfortunately, not even the most transcendental of philosophers was able to contend that the mind is born with all—that it gets none from experience in its course from the pap-bottle to the grave. The question had to be, then, does it possess any which experience cannot have given it, and which, like "clouds of glory," it must have "trailed" along with it into this world from a better one? Different philosophers have answered this question differently. Some have been unable to maintain that apart from experience the human mind has any ideas whatever. Others have contended that it obviously has some—one of these "clouds of glory" being our knowledge that the rules of arithmetic are necessarily true everywhere and for all eternity, which we certainly never could have learned from our limited life here.

As to the next question—namely, that of the character of the external world, our philosophers differ also. There are practically three ways in which the external world can be conceived by us. One is based on the ordinary materialistic conception of matter, which the clergy and their earlier opponents, as we have seen, shared, but which the clergy supplemented with the hypothesis

of an outside Power that moved it, and their opponents did not, being thus far at a disadvantage. This conception, as will be evident from the previous chapter, all the philosophers now in question reject.

There remain two others, of one of which—the most obvious—the previous chapter contains a sufficient account. It is a conception of matter, or the substance of external world, as a something which, even if we call it pure mind or spirit, is nevertheless independent of our own minds as individuals, and, indeed, of all the minds of the human race collectively.

The other conception is of a curiously opposite kind. According to this, the thing which we call matter, and all the universe which we commonly call material, would apart from ourselves have no existence at all. It would not, indeed, as Professor James Ward—a distinguished exponent of this conception—admits, cease to exist with the death of any one individual, any more than the House of Commons (to take his own illustration) would cease to exist if one of its members quitted it; but it would cease to exist if the whole human race perished, just as the House of Commons would if it had no members left. This doctrine, absurd as we shall see it to be, is nevertheless not so meaningless as it seems. It is based on the admitted fact that we know the world of matter only as the cause of the effect produced by it in our own consciousness. What consciousness gives

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us, in short, is nothing but a series of experiences. Let us, then, take the case of a drunken workman. whose main experience is a constant longing for beer, varied at intervals by the pleasure of having his thirst satisfied. Constant thirst, and the pleasure of occasional drinking—this is all that his consciousness directly gives him. But, so the argument will proceed, the workman's mind, which is in this respect as perfect as the mind of a philosopher, does not consist of passive consciousness only. It comprises also the faculty of active intellect, which insists on reducing his passive experiences to order. Accordingly, as if it were making a drawer tidy, it arranges them in two portions. It puts the constant thirst on one side. and calls it the man's own self; and it puts on the other side the occasional pleasure of drinking, calling this beer, and pretending that it is something external to him. It exhibits the universe, in short, as a kind of nightmare, dreamed by a man who has eaten too much for supper. The reality underlying the nightmare is a vague internal discomfort; but the man explains it to himself by imagining with extreme vividness, that a toad, an old woman, or a policeman, is sitting on the pit of his stomach.

Of the two great schools, then, into which modern philosophy divides itself—that is to say, philosophy as distinct from physical science—one regards matter, or the universe, as something which, even if it is mind, is distinct from the mind of the individual; while the other regards it as a sort of dream or abstraction, formed by the mind from its experiences, in order to make them intelligible.

Both schools, however, in spite of this opposition, are reunited by their agreement as to a farther point, which is for the religious apologist of much more importance than the above. They unite in laboring to demonstrate that the individual mind is not only passive, but constantly active also. That those who regard the universe as constructed by the mind itself, must insist on the mind's activity, is of course self-evident; but the other school is in this respect no less emphatic. Holding, though it does, that the universe has some real external substratum, whose existence is in no way contingent on that of the human mind, it nevertheless maintains that the order which the mind discerns in it is due to some fashioning effort—our philosophers call it "conation"—which is exerted by the mind itself, and which somewhat resembles the action ascribed to the Deity in Genesis, who fashioned a formless mass, already existing, into a cosmos. In other words, it is urged that the mind is a kind of loom which. though not itself the producer of its own wool, weaves into intelligible patterns the wool which experience gives it. Thus Hegel and Kant, however they may have differed otherwise, agree—to quote the words of an accomplished writer-that the conscious mind consists of "a web of categories which it throws over the world, and by

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means of which it makes the world intelligible": while T. H. Green, a leader of English Hegelianism, insists that "Nature requires a unifying intelligence (resident in the mind of man) to arrange sensation, which cannot be sensation itself."

Hence though, according to one of these two philosophies, which we may call Objective Idealism, the universe is the work of some genuinely external reality, and is, according to the other, which we may call Subjective Idealism, the work of the mind on its own internal constitution; according to both, the individual mind is the active hero of the drama, and reduces the universe of science to a condition of inoffensive helplessness. The religious bearing of all these arguments is obvious. Does science detect in the universe the tyranny of an unbroken determinism? What matter? This is not a determinism which the universe is imposing upon us, but a determinism which we, who are determined by ourselves only, have for our own purposes attributed to, or imposed on, it. Do the various phenomena of the universe-our own bodies especially-seem to dissolve and fade and pass away irrecoverably? What matter? Our bodies are created by our minds. The created appearance disappears: the creator still persists. Thus, says Professor Ward, by the aid of a true philosophy, man learns to recognize himself as a "spirit in a world of spirits"; and from a world of free spirits, with the universe as

their humble pensioner, the passage, he proceeds, to "the Supreme Spirit" is easy.

Such are the arguments, none of them in themselves new, by which the philosophic apologists are at the present day endeavoring to liberate religion from the fetters of physical science. Now inconsistent as are many of these philosophic views with one another, and ridiculous as some of them must seem to the non-philosophic intelligence, there is not one of them that does not embody the results of acute reasoning, and from certain points of view does not appear to be indisputable. They deserve, therefore, in their bearings on science to be very carefully considered. Do they really invalidate the authority of any of the scientific conclusions from which, in the interests of religion, we desire to make good our escape? This question we will consider in the following chapter; but I will briefly indicate in advance the result to which our inquiry will lead us. It is one which to many readers will come as a complete surprise, and which even by scientific thinkers is as yet but partly realized. What we shall see is this—that, though many of the philosophic conclusions whose outlines we have been just considering are hopelessly inconsistent with one another, and though certain of them taken by themselves, and taken as they stand, are absurdities, science, instead of rejecting, actually absorbs the whole of them; and by harmonizing their contradictions, and turning their paradoxes into platitudes, gives them a cogency which they

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never possessed before; but that then, having thus strengthened them, and placed them in their proper order, it subjects them all to its own original system, and exhibits man, with greater completeness than ever, as the helpless and vanishing puppet of a process which for him means nothing.

v

IDEALISM AS ABSORBED BY SCIENCE

The foregoing account of philosophy, as applied to religious apologetics has, it need hardly be said, confined itself to the broadest and most essential doctrines by which the different philosophies are either allied or divided. There are a multitude of subordinate differences separating different theorists—some of them really important, most of them absolutely trivial—to which I have made no allusion. But it is not, for our immediate purpose, necessary to inspect them here. We will for the moment content ourselves with the doctrines which have just been indicated, and see what science makes of them, as soon as it gets them in its grip.

One thing which it does for them is, as has just been said, to reconcile those of them which are, for the philosophers themselves, contradictory. I will begin with an example of this which to most readers will be familiar. It relates to the rival doctrines with regard to the origin of our ideas, according to one of which certain of them—such, for example, as the necessity of mathematical truths—are not and cannot be derived from any

earthly experience; while according to the other, they are derived from nothing else.

How are we to decide which of these doctrines is true? Science settles the question by asserting the truth of both. The individual mind, it says, of the slowly evolved creature, man, has ideas which are prior to its own individual experience: but it has none which were not derived in the first instance from the experiences of its human and subhuman progenitors. From the first moment in which the mind-matter or general substance of the universe nucleated itself into the cell or cells of which we are the direct descendants, the individual life began to receive impressions made on it by its own environment. These impressions it transmitted to subsequent organisms, its progeny; and as the progeny grew more complex, so did the impressions also, which the organisms handed on to organisms more complex still. The "connection of things" was, in Spinoza's language, to an increasing degree reproducing itself in the "connection of ideas." Here we have an explanation of the necessity of mathematical truths. are necessary truths as apprehended by our own minds, because in the course of millions of untold years, no exception to them ever has, or ever could have, stamped itself on that sequence of growing minds whose cumulative experiences are in ourselves. I shall point out by and by that, as to the origin of knowledge, science suggests an explanation which goes deeper yet than this, and of which,

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as apart from science, philosophy can form no conception. But what I have just said is sufficient for our immediate purpose, which is merely to illustrate the fact that two doctrines which for philosophers are nothing but loose conjectures, and of which the one is in absolute contradiction to the other, may become, when absorbed by science, a single and precise truth.

We will now pass on from this point to the two others which occupied us in the last chapter. The first is the contention on the part of our philosophic apologists, that the mind is obviously independent of the scientific universe, because the mind is essentially a self-active principle, which either rationalizes the universe, or creates it, in virtue of its own "conation." The second is the contention of one party that the universe, whatever its nature. does possess a substratum external to the mind that works on it; and the contrary contention of the other party, that the substratum is the mind itself. When we have considered these cardinal points once more, and have seen how science meets them, we shall practically have considered everything that is essential to our immediate subject.

The doctrine of conation, on which our philosophers lay such stress, takes us straight to the great gulf by which philosophy and science are separated. The basis, the starting-point of philosophy as opposed to science, is to be found in the fact that the philosophers assume man's mind to be an entity without antecedents, which is the source of

its own activity, and which, if it is not the substratum of the universe itself, confronts that substratum as a stranger from another world. Science. on the contrary, shows it to be a highly composite product, having in itself the workmanship of a hundred million years, rooted in the universe which it confronts, and drawing from this its daily nutri-Inquisitive children sometimes embarrass their parents by ill-judged questions as to how babies are born; and mothers have been known to answer that they are picked up in the fields. If any children ever believed this story, the philosophic opponents of science are, in this respect, exactly like them. They all of them look on the mind as a baby not born but found; and to such philosophers science very pertinently replies that they are as much disqualified for understanding the mind's true nature, as a man who believed that babies were picked up in the fields would be for writing a treatise on the natural increase of population.

This error of the philosophers, however, was till recent times unavoidable. There was no reasonable alternative to it; and since many of these philosophers, such as Kant and Hegel, for instance, were men whose acuteness of intellect has rarely been surpassed or equalled, they reached, in spite of their error with regard to the mind's origin, many conclusions which were correct, with regard to its operations. Science recognizes this. In especial it recognizes the correctness of the doc-

trine which we are now considering. Instead of contesting what the philosophers say, to the effect that the process of the mind is one of action, effort or conation, it translates the assertion into a different language, and reproducing it with an added emphasis of its own, makes it intelligible in a way which was, for the philosophers, impossible.

The individual mind, it says, undoubtedly is active - more active than any bee-hive in the process of making honey; but in this it is not peculiar. There is activity and conation in every part of the universe. There is conation in the breaking sea; there is conation in exploding gunpowder; there is conation in ginger-beer when it blows its cork out of the bottle. But the conation is in no case isolated. It is part of, and depends upon, the universal conation of nature. The same thing is true of the brain, which is the physical side of the mind. Its millions of cells are in a state of constant movement; so are the molecules that make up the cells, the atoms that make up the molecules. and the ions that make up the atoms; but all these movements are part of a wider process, and are all determined by extra-cerebral causes, just as a flower is determined by causes outside itself-by soil, by air, by sun, by its parent plant or tree. The brain is kept in motion, first, by the bodily organism as a whole; and, secondly, by the food. the air, and so forth, which the organism as a whole assimilates in the brain's service, and which maintain its activity and condition it. Let food

cease to enter the body, and the conation of the brain ceases. "Man is what he eats," is supposed to be the motto of materialism. Properly interpreted, it is merely a short way of saying that man and the universe are both of the same unknown substance, and that the activities which are outside man are constantly being absorbed into him, in the form of what we call food, and by the process which we call digestion. In other words, the conation of the mind or brain is to the conation of the universe what the reaction of a mechanical detent or governor is to the action of some larger mechanism which it regulates, when the regulating part and the whole are actuated by the same spring. The "unifying intelligence" which, as Green says, "arranges sensation," and which "throws over the universe its web of categories," is part of the universe over which the web of categories is thrown.

Thus by its discovery of the pedigree and the gradual formation of the mind, science, while agreeing with the philosophers that the mind is quite as active as they say it is, completely inverts the significance with which this fact was invested by them. Instead of exhibiting the activity or conation of the mind as a proof that the mind is independent of the external universe, it exhibits it as illustrating, in the most vivid possible way, the fact that the former is entirely governed by the latter, and is, indeed, merely a part of the general cosmic process.

Here, however, the reader may object that

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science is arguing on an assumption, which, as we have seen already, is still under philosophic dispute—the assumption that the external world is in some sense really external to us, which, though made by one school of philosophers, is emphatically repudiated by the other. This is precisely the point to which we are now coming; and the manner in which science deals with these doctrines of the two philosophies will throw yet further light on its treatment of the mind's activity.

As stated and conceived of by philosophers who theorize apart from science, both doctrines present difficulties. The Subjective Idealists attack the position of the Objective by asking them how, if the substratum of the universe is external to us. it and the mind ever come into contact, and why it should be necessary to assume an external substratum at all. Our perceptions, it is admitted on both sides, are all that we know directly. Why should not the perceptions themselves be the essence of the thing perceived? The Objective Idealists reply to these questions with others, of which the most important is this: Unless there is some external substratum independent of the perceiving minds, how do different minds experience the same perceptions? How have human beings any common experiences whatsoever?

It would be hard to imagine positions more absolutely opposed than these; neither, as it stands, has any tangible proof; and yet science demonstrates each, and completely unites the two. It

does this, moreover, in the way that is seemingly most unlikely. While to the ordinary man one of the rival doctrines—namely, that which allows to the universe some independent reality-will seem at once to be in harmony with commonsense, and is indeed a doctrine which science itself assumes, and while the other doctrine will seem to him a piece of extravagant nonsense, science effects the reconciliation of the two, so far as logical sequence is concerned, by allying itself with the second before it confirms the first. For this reason it is to the second that our more particular attention must be given; and not for this reason only, but for another no less important. It is this second doctrine—the doctrine of the Subjective Idealists—on which the philosophic apologists of religion mainly rely now, as a means of reducing science with its mechanical necessities to impotence, and giving us back a world of free responsible spirits, who may freely indulge in as much free religion as they please.

The general idea at the root of this redeeming philosophy, which an Anglican apologist of to-day has declared to be "more than valuable," it being in his pious opinion a complete solvent of determinism, has been briefly explained already. The mouse which emerges from a great mountain of reasoning is the idea that the universe is a dream which each man dreams in private. But if this seems too homely a manner of expressing a truth so important, we may if we like dress it up in the

technical language of its exponents from Fichte down to Wundt, Professor Munsterburg and Professor Ward, and say with the last three that the way to save our souls is to realize that the universe is "an abstraction from our own unitary experience," and that though the sun and a man who is staring at it are not quite the same thing, they are "a duality having its basis in the unity" of the man's nature. Thus, to take a favorite illustration of their own, when ten men think that they are looking at the same sun, each is really contemplating a separate sun of his own. They are all merely experiencing a similar sense of brightness, which each represents as caused by a similar sun outside him. They are like ten men suffering from ten stomach-aches, who all tell one another that they have been sat upon by the same incubus

To the ordinary practical man it may well seem that the force of raving could go no further than this. He will argue, for instance, that if this explanation of things be true, zoologists are like so many men suffering from delirium tremens, who are studying similar phantom snakes in their boots. And the Subjective Idealists themselves, who are mostly unpractical persons bemused by their own subtleties, if, instead of looking for their illustrations among the heavenly bodies, which for any ten men contemplating them have the same unalterable aspect, they would take such objects as a biscuit or a mutton-chop, and then ask what happens

if while the ten are staring at it, one of them more prompt than the rest makes so bold as to eat it, they might see reason for sympathizing with the ordinary man's bewilderment.

The difficulty, indeed, of the whole Subjective position lies here—or rather its two difficulties. The first difficulty is to explain how all the varieties of men form so many abstract universes, each of which is co-incident with the others, and which, as in the case of the man who is eating the muttonchop, are similarly modified for the others by this one man's action. The second difficulty is to explain how, on the subjective hypothesis, the individual is to assure himself that there are any other men at all. Of the first difficulty a solution was sought by Fichte, in supposing that besides the individual human minds there is an absolute human mind—the common foundation of everything -and that of this the individual human minds are hypostases. But to suppose this, is to abandon the subjective doctrine altogether. It restores to us our external universe disguised under another name. Still, though not solving the difficulty, it is at all events an attempt to solve it. But the other difficulty of how, on the subjective hypothesis, the individual is ever to know that there are any other minds but his own-of this, no explanation has been attempted, and, indeed, none is conceivable. The only way to render Subjective Idealism logical is boldly to accept the conclusion to which in logic it inevitably leads us-namely,

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that only one mind and one personality exists, and that everything else is the furniture of this good gentleman's fancy. The universe is his own mind unfolding itself to itself, unpacking its own portmanteau, inspecting its own machinery, and constantly surprising itself by discovering what a complicated self it is.

That this conception (technically known as solipsism) is absolutely logical from within, has been admitted by all thinkers, even the most muscular realists, from Locke down to Clifford and Huxley. It is indeed the only conclusion which is so, if we confine ourselves to dealing with existence by the purely introspective method. And yet even the Idealists themselves are forced to get out of it by a leap, and assume that there are other minds external and analogous to their own, for the simple reason that a system which in point of logic is perfect, is practically even for them too degrading a piece of folly to be tolerated. Let us now consider this system, as treated by modern science.

By showing that the individual mind with which this system starts is not, as this system assumes it to be, a self-existing unit of consciousness, but a complex organism evolved from simpler elements, of which organism consciousness covers a small part only, science has practically revolutionized our whole conception of personality, and the borders of what we call self have been by it indefinitely widened. It has shown that, if we call a man's

self those rational processes which are going on within the limits of his organism, he is as ignorant of what is happening in the larger part of himself as he is of what is happening in the moon or in the Milky Way. It is enough, in illustration of this, to mention the case of memory, which in each of us is a crowded register of things which we have never noticed, and of which it betrays its custody under rare conditions only. Science thus includes in self a whole region of mental life which, though comprised in the organism, is external to the conscious part of us, and indeed to everything that we can call our own personal experience. It thus breaks down the dividing line between ourselves and the universe altogether. For just as the conscious self is a small but integral part of the organism which it calls its own, so is that organism an integral though a small part of the universe.

The conception of things thus forced on us will perhaps be made clearer if we imagine the universe to consist of nothing but a single rose-tree, together with the soil which it grows in, a sun, an atmosphere, and rain; and then imagine that from the tree there blossoms a single rose. It is obvious that this rose will be a flowering not of its own tree only, but of the soil, the sunlight, the air, and the rain also. Our whole little imaginary universe will in fact be the true rose-tree. Let us enlarge our conception of the universe until it coincides with reality; in place of the rose let us put the

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mind of man; and we have the conception of ' man's mind to which modern science leads us. This mind is merely a flowering of the cosmic plant or tree. Nothing is in the flower that was not first outside it, and that does not thrill through it from without; and just as the mental flower is part of the cosmic tree, so is the cosmic tree part of the mental flower. Just as the cosmic tree would call the mind-rose "My flower," so would the mindrose call its cosmic source "My tree." Or, to put the matter in slightly different words, we may say of each individual human being that, in a strictly literal sense, the entire universe is his body, or constitutes his extended self. He is a nucleated point of consciousness in the albumen of the cosmic egg.

It will thus be seen that, if only one man existed, the extreme idealist position—the position called solipsism—which even idealists dread because of its practical absurdity, would, as interpreted by science, represent a scientific fact. The universe would in a sense be the body of that one man—the outlying cell of which his conscious Ego was the nucleus. But every one of the other men, who really exist along with him, may with equal justice say the same thing of himself. The same universe is the extended body of each; the same universe is the extended body of all. Thus according to science, when science has been rationalized by philosophy, the external universe is for each separate mind more truly a part of it than it

is said to be by the boldest idealist, and is also as completely independent of all individual minds as it is said to be by the most common-sense realist.

Such, then, is the manner in which science receives the attack made on it, in the interests of religion, by the introspective philosophies. It has not repelled their arguments, but still less has it succumbed to them. It has made them its own. and applied them to its own purposes. It has taken over a pair of unmatched and unmanageable horses, and turning them into one horse has put it between a pair of shafts. In other words, the philosophy of the religious apologists, as applied to science in its old materialistic form, has, instead of proving, as it was meant to prove, a solvent, been to it like a solution of silica applied to a friable stone. The stone has drunk it in, and become as hard as marble. All its original veinings which, in the interests of religion, it had been the intention of the philosophic apologists to obliterate, remain what they were, having only become clearer, as the veins of marble do when the marble receives a polish. The universe remains as rigid and as unresponsive as before—the process of a Something which, when seen to be of the nature of mind, is no less mechanical in its behavior than it appears to be under the guise of matter. Man remains as before, in spite of his derived activity, nothing more than a passing and passive mode of it; and the Whole, or God, if we like to use that

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name, becomes more remote and more hopelessly inaccessible than ever.

Since, then, the methods of the clerical apologists, who attack science in detail with a view to showing that the universe is not self-acting, but requires a God to aid it—like an old Newcomen steam-engine, which required a boy to regulate the admission of steam to the cylinder; and since the methods of the philosophic apologists, who try to get the better of necessity by showing that it is a law which man imposes on the universe, instead of a law which the universe imposes on man—since both these methods, as at present applied, are worthless; since the clerical method fails of its ends, and the philosophic method defeats them it remains for us to ask whether the cause of religion is desperate, and no hope remains of escape from the scientific dungeon; or whether a recognition of the futility of the methods we have just been considering may not be the means of driving us somewhat farther afield, and helping us to light upon others of a more promising kind.

My aim is to show that it does thus point to others—to two others quite distinct in character, which we will first consider separately, finally taking them in conjunction.



THE PRACTICAL WEAKNESS OF CURRENT SCIENCE

Let us start our argument afresh by re-examining briefly the kind of conclusion which we are now assuming that we have established. This conclusion, put into popular language, is that science does, as its extreme exponents claim that it does, explain everything; or that everything is potentially explicable on strict scientific lines. Such language, however, is only popular or general. We must, therefore, consider more closely what, when they are thus used, is meant firstly by the word "science," and secondly by the word "everything."

By "science" is meant the system which professes to explain all existences as modes of a single substance, which, in itself unknown to us, is by our own experience apprehended under the guise of matter—just as the movements of a hand, itself invisible, might be known and studied by us if it wore a visible glove. The distinctive doctrine of science, then, is not that everything is matter, but that all individual things, the mind of man included, result from a process of which matter is,

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for us, the inseparable concomitant, and which develops them in accordance with a single system of causes, the working of which science studies by means of its material equivalents.

By "everything," when science is said to explain everything, what is generally meant, and what we here mean also, is man, not merely as a living organism, but also as a being endowed with certain appetites, and with a highly developed reason by means of which he is able to minister to them; and among these faculties are included the social instincts which fit him, like bees and other gregarious animals, to struggle for what he considers his happiness, in social co-operation with his fellows. But here science stops. It does not, as a doctrine of causes, discriminate between the kinds of happiness-and these are very various-which different kinds of men, when socially organized, seek. It gives us man as he would appear to some detached spectator, waiting to see him do something, and not much caring what.

The conclusion, then, which we are assuming ourselves to have reached, is that, if we take science and man in the senses just indicated, science deduces man from the general substance of the universe, and exhibits him to us as one of its passing phenomena, in a way so complete as to provoke no farther inquiry. In what way, then, is it open to attack at all?

The possible inability of science to explain everything first makes itself suspected by the thought-

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ful and unbiased mind, when, fixing our attention on the facts of concrete life, we realize that we ourselves never do, for practical purposes, look upon man in the spirit of detachment just described. We look upon him, and history shows that he has always looked upon himself, as a being who is not only capable of seeking happiness somehow, but is bound to seek for it in some specific way, compared with which its alternatives are inferior, or even abominable. This observation is true in the case even of savages, but it is specially applicable to civilized and semi-civilized races, and is illustrated in a general way by the fact that all such races. however different their ideas of civilization may be, regard civilization of some sort as essentially higher than savagery. Moreover, when we thus consider human life in the concrete, we are struck by the further fact that, even if the scientific explanation of man's nature be true, which denies to him any personal intercourse with any trans-human intelligence, and reduces moral goodness to mere social efficiency, yet the progressive and civilized races from the earliest times till now have not only never believed in, or even suspected, its truth, but have all held beliefs of a definitely opposite character. Of this phenomenon the example most significant for ourselves is supplied by the history of the great Christian civilizations, and consists of their unanimous belief in the doctrines of Christian theism. Modern civilization and theism have grown up together.

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Now this civilization—the civilization which we all inherit—apart from its material advantages, to which we need not here refer, has imbued life with a number of developed qualities, moral, æsthetic, and intellectual, the loss of which we should all of us consider as equivalent to a return to savagery. The question, then, which at once suggests itself is as follows: Has the association of this civilization with theism been merely an accident, or has the latter been an active cause of the former? Do these qualities of life, which we are determined not to lose, depend on the beliefs by which their development has been accompanied? And if they do depend on them at all, to what precise extent do they do so? Or in other words, what change would come over the quality of life if all theistic belief were really expunged from our consciousness and the scientific explanation of existence universally took the place of it?

Here we come to the point at which the apologist of such belief should, for reasons of convenience and of practical logic also, begin his dispute with science as to its claim to explain everything; for if this belief, to which science, as at present interpreted, is unable to give harbor, should be found on examination to have no value practically—if, for example, like the story of Alfred and the cakes, it would take with it, should we dismiss it, nothing besides itself, and if the quality of our lives would not be otherwise altered—then, quite apart from the question of whether it is possible to defend it,

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there would be no reason for trying, or even for wishing to do so; and the dispute with science need not be carried further. But if, on the contrary, it turns out to be demonstrable that this belief does really fulfil certain far-reaching social functions, and that what we all look upon as the higher social activities would cease and die of atrophy if this belief were withdrawn, the apologist at once has a basis of world-wide fact on which to found a presumption that this belief must be true.

I speak for the moment of nothing more than a presumption. The strength and value of the presumption we will consider by-and-by, but first I propose to show that such an essential connection between the mental civilization of man, understood in its widest sense, and the religious belief in question, whether latent or consciously completed, is actually a fact which can be demonstrated by careful analysis as surely as the presence of phosphorus can be demonstrated in organic tissue. And here—in this region of moral and emotional chemistry, where the subjects of analysis are provided by practical experience and history, by knowledge of the world and conversance with various types of character, and where art and literature, as revealers of the spirit of man, are the assistants—the apologist will find, when he enters the lists against science, that his position is the precise reverse of what it was in his former encounters. There the advantages were all on the side of science, here the advantages will be

all on the side of religion, the opponents of religion being impotent in proportion as their science is sound.

An analysis of the kind of which I am now speaking might afford material for a volume. All I shall attempt here will be to give a bird's-eye view of the classes of fact which it will deal with and the main results of its application. We will, however, in view of certain possible objections, consider belief, as such, under various aspects first.

II

BELIEF AS A CAUSAL FACTOR IN LIFE

One objection which deserves to be considered and met is an objection which, to most people, would never even suggest itself, and has always been practically disregarded by the scientific thinkers who urged it. It arises out of the fact that, according to all scientific monism, mindstates and the brain-states that accompany them are one and the same phenomenon. Hence it was urged by Huxley and many others that there could not possibly be any interaction between them any more than there can be between a redhot poker and its redness. They accordingly propounded the doctrine that consciousness in all its forms-belief, of course, being one of them-was nothing but a cerebral by-product, or, as they called it, an "epiphenomenon," which registers what the brain-mind does, but has no share in directing it. It is easy to see how this opinion arose. Since the development of the brain, it was argued, antecedes the development of consciousness, conscious mind-states cannot be the cause of the brain-states which form their basis.

can, therefore, be one causal factor only—namely, the mechanism of the brain itself, which determines the content of consciousness by a previous non-conscious process.

Now if this were really so, it would follow that the whole human race might have been as unconscious as so many Dutch dolls, and yet human history in other respects would have been just what it has been. The same words would have been spoken, the same books would have been written, though no one attached any meaning to either; and battles would have been fought and nations risen and fallen without anybody knowing what a battle or a nation was. But since this conclusion is revolting to common-sense, Huxley and his friends endeavored to find a refuge in declaring that the changes in consciousness are not caused by the changes in the brain, but are parallel to them. Of this doctrine it is enough here to observe that, unless it is meant to mask an admission that consciousness is, in its origin and essence, distinct from the brain altogether—which is the very thing that Huxley and his school denythe doctrine of parallelism is merely a misleading restatement of the old, unmanageable doctrine for which it is put forward as a substitute. It is like saying that the redness of a red-hot poker is not caused by, but is parallel to, the condition of the heated iron.

The true way out of the dilemma is of a very simple kind, and this is, perhaps, the reason why

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Huxley and his school missed it. There is, indeed. in reality, no difficulty at all. The right way of putting the case is this. States of consciousness cannot, as independent things, react on the brain -so much we admit-any more than the brain can act on them as things independent of itself: but tracts of the brain, when they come to be in such a condition that consciousness emerges from them like the glow that emerges from hot iron, or the flame that breaks from hav when it has become heated in the stack, are different in respect of their own internal behavior, and the effects which they produce on the other brain-tracts surrounding them, from what they are when in such conditions that the phenomenon of consciousness is absent; and there is thus specific interaction between conscious and non-conscious brain-tracts, though there is none between brain and mind, considered as two separate entities. A dry stick set on fire by friction will scorch or warp others of a similar kind lying near it, but would not do so if it were not alight itself. There would be no parallelism between the burning stick and its burning, for the flames would be part of the stick's own proper substance: nor would there be any interaction between another stick warped or scorched by it and something else whose substance was not similar to its own. There would merely be a stick in one condition acting on a stick in another. Precisely the same thing holds good of the brain and consciousness. There is neither interaction nor par-

allelism between brain-states and what is not a brain-state; but there is interaction between different tracts of the brain, one of which is incandescent with consciousness, while the other or the others are not.

The fact, then, that states of consciousness may, and that certain states of consciousness — beliefs being among them—do, exercise on the brain or mind a reactive and determining influence, is perfectly consistent with the principles of the most rigid physical science; and the preposterous paradox being removed, with which Huxley and his friends had burdened themselves, we may now proceed with our argument in the full and comfortable assurance that, as to the causal efficiency of belief, science and common-sense are at one.

It must, however, be remembered that, though certain states of consciousness, such as states of belief, are active and causal forces, there are many states of consciousness which are really mere passive products or conscious registers of processes themselves non-conscious. And it will help us to understand the part which conscious belief plays, if we take a simple case of conscious conduct and feeling and compare what they are when mere passive by-products of the organism with what they are when conscious belief determines them.

Let us take that complex state called high animal spirits. It is one which is specially instructive, because animals—kittens and lambs, for

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instance, when they jump and play - experience it no less than men. Now, high spirits, in the case of a lamb or kitten, are obviously nothing more than a consciousness of organic activities, the effects of which consciousness feels, but which it does nothing to regulate; and men have their animal spirits, just as lambs and kittens have, the exhilaration for them, too, being the product of organic conditions, of the very nature of which nine of them out of ten know nothing. Let us now compare this kind of good spirits with another kind, from which, in its outer signs, it is often hardly distinguishable. A boy comes down to breakfast, absent, listless, and moody, having spent the night in wondering whether somebody loves him still. On the breakfast-table he finds awaiting him a letter from the lady herself, which assures him that her sentiments are still as tender as ever. A sudden change comes over his whole system. The spirits of the young Werther become those of a frisking lamb, except for the one fact that their origin is wholly different. It is not an unconscious process; it is a definite belief about a lady — often more than twice his age which, itself an effect of causes external to the boy, is in its turn the cause of a further effect within him.

Rudimentary examples such as this will serve to indicate one thing — that though our feelings and actions are, in their simplest forms, largely independent of any conscious belief, yet in actual life they are elaborated into experiences of a new order by conscious beliefs reacting on this quasipassive material. Nor is this all. When our inquiry has been pursued further we shall see that our states of feeling become deeper, richer, ampler, and more specifically human, in exact proportion as beliefs play a part in determining them.

Here, however, a further point will, perhaps, have suggested itself to the reader, which also requires to be dealt with before we proceed further. We have been considering belief as equivalent to a state of consciousness, but it need not always be so; and in the inquiry on which we shall presently enter, it will be necessary to remember this. Any belief may exist in three forms, no one of which can be called directly conscious.

It may exist as a supposition which is unnoticed because it is instinctively ignored. Thus a man may, so far as his consciousness is concerned, believe himself to be the disinterested lover of a woman who is a reputed heiress. That the thought of her money had anything to do with his devotion, he would himself strenuously deny; but if he should learn from her lawyer that she would forfeit her fortune on her marriage, and found his passion declining in consequence to the tepidity of a platonic friendliness, which is generally the precursor of neglect, the reality and the efficacy of his belief in the lady's pecuniary value, would be shown by the effects which followed when this belief was destroyed.

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Belief, again, may exist in the form of an assumption which is never consciously recognized, because it has never been consciously questioned. Thus a man may esteem and trust a friend without ever having said to himself that the friend is strictly honest; but that he has believed him to be honest, and that his friendship depends on this belief, is shown by the fact that his esteem and his trust would vanish should he suddenly discover that his friend was a professional pickpocket. How little this fact, seemingly so simple, is appreciated, is shown in a very interesting, though slight essay on "Religion," by Mr. G. L. Dickinson, who endeavors to exhibit genuine religious faith as perfectly compatible with a condition of intellectual agnosticism. Its only connection with a belief in God consists, he says, in the fact that "a certain distress" results when the existence of God is denied; which distress, he continues, really results from the destruction of "a volitional assumption that things, whatever appearances may suggest, are really 'worth while.'" This is merely a confession, little as the writer perceives it, that the kind of faith in question rests on a secret belief, previously unrecognized because not previously assailed, that things are really "worth while" because a trustworthy God makes them so.

Finally, belief may exist in a form less obvious still. It may exist not as an assumption, unconscious because not questioned, but as an implication which is latent in a belief held consciously,

though its presence is unsuspected because it has never been logically developed. Of beliefs thus held by unconscious logical implication, the theorems of Euclid afford familiar examples. A man may consciously believe in the existence of an equilateral triangle, and may base a course of conduct on a knowledge that its angles are equal, but may vet be quite unaware that these angles equal two right angles. It only needs, however, that this latter fact should be demonstrated, and he will see that his mind by implication has contained a belief in it from the first. A further example will be yielded by the kind of religious faith of which Mr. Dickinson gives us so incomplete an analysis. Not only does this comprise an assumption that a God exists, which, as soon as attention is called to it, is clear to us in a general way; but this assumption itself, as we shall have occasion to note presently, will be found to contain by implication a number of detailed propositions which may altogether escape us, till accurate thought shows us that our general conception necessitates them, and actually falls to pieces if these propositions are denied.

Thus, when we talk of religious belief as affecting practical life, though conscious belief will be what we primarily have in view, we shall also include in this beliefs which are unconscious, either because they are ignored or because they are instinctively assumed, or because they are implications which have not been logically developed.

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Having now considered belief under its most general aspects, as a psycho-mechanical activity by which the data of consciousness are, like a raw material, woven into finished products, we will turn our attention to the three beliefs in particular—the beliefs of the theist in God, freedom, and immortality—which science, understood in the sense that was just now indicated, not only makes, but boasts of making, impossible.

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MENTAL CIVILIZATION AND THE THREE BELIEFS OF THEISM

Our aim, let me repeat, is to show that these three beliefs, which make up what we are here calling religion, have a prima-facie justification in their effects on practical life—that life, in short, in those forms which civilized men value, would be utterly unable to flourish or persist without It need hardly be said that, in its essence, the argument is not new; but, as commonly used by apologists—by Christian apologists in particular —it is, besides being obscured by its utter want of system, made worthless for controversial purposes by an artificial narrowing of its application, which prevents it from reaching the sympathies of those who are most in need of it. When the ordinary apologist—the Christian apologist in particular—endeavors to establish the truth of a belief in God by any reference to its effects on our moral and mental civilization, his first temptation is to assume that God, if He exists at all, must possess the specific character which the apologist's own church or sect, whatever this may be, imputes

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to Him—the character imputed to Him by Calvin, by President Krüger, by the pope, or by the author of The Christian Year. His second temptation will be, in dealing with human civilization, to confine, or at any rate to give most of his attention to. what in its narrowest sense is called the religious life. He ought, if his work is to have any general value, to put, at the beginning of his argument, both temptations away from him. He should make his conception of God and civilized life as wide as he can, and as non-Christian as he can, reserving his Christian arguments for a much later stage of his proceedings, at which, whatever their value, they will be in their right place. Thus, in dealing with God, he should carefully refrain at starting, from attributing to Him any more specific qualities than a supreme personality which contains, in responsive perfection, everything that any man looks upon as beautiful, or sublime, or good, or satisfying to his higher nature. Similarly, in dealing with civilization, he should at first refrain from insisting on any of those moods or exercises which Christians associate with the life specifically called religious, and confine himself to those interests, principles, affections, and æsthetic enjoyments, which are commonly supposed to be the rivals rather than the dependents of religion, but are generally recognized as constituents of advanced culture and refinement.

This procedure is one with which no Christian should quarrel when he reflects on what the main

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object of the apologist now is. It is partly, indeed, to fortify the weak who agree with him in his Christianity already; but it is mainly to convince those who at present can hardly be even theists, and for many of whom the life of worship has no natural fascination. If, then, at starting, he will have no God at all but a Jehovah, or a "wrathful Lamb," the God of the Shorter Catechism, or the burning Heart which gave itself to the Blessed Margaret Mary, he will alienate the larger part of his possible listeners at starting; whereas, if he begins with a God whose goodness is indeterminate, and whom each man may interpret in terms of his own sympathies, his argument will lose nothing for those who are almost Christians already, and who will be quite able to Christianize its general tendency for themselves; and it will at once touch the majority, who otherwise would not listen to it. In the same way, if, in dealing with civilization, he treats the religious life as its most important element, and the loss of it as the principal injury which the triumph of unbelief would inflict on us, many of those whom he is most concerned to reach would feel that if this was all it did not very much matter—that if the religious life, with its church-goings and its sermons, went this would on the whole be rather a good thing. But let the apologist cast his nets wider, and show that not the religious life only, but all the higher form of irreligious life also, would suffer equally were the beliefs in question withdrawn; and he and

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all whom he may address will have a common ground to stand upon. He will have enlisted as witnesses to the practical value of these beliefs, not merely the piety of a small communion of saints, but also the common-sense and culture of the civilized world at large.

The doctrines of religion, then, and the most valuable elements of civilization being thus understood in the widest possible way, the task before us will be to take these doctrines separately, and trace the more important effects on feeling, conduct, and culture, of a practical belief that each of these doctrines is true.

Of these beliefs we shall find that two only—namely, the belief in God and the belief in human freedom—require to be treated with any great minuteness. The belief in immortality is simpler in its effects than the others; the scientific difficulties involved in a reasonable assent to it are the same as those involved in an assent to the belief in freedom; and a short chapter devoted to it, when the two others have been discussed, will be sufficient. Of these others, it will be well to deal with the belief in freedom first, as this is connected most closely with our ordinary secular experiences.

IV

MENTAL CIVILIZATION AND THE BELIEF IN HUMAN FREEDOM

It was observed in the preceding chapter that Christian apologists generally, when defending religious belief by reference to its practical consequences, weaken their argument by unduly limiting the application of it. It must here be observed that, when dealing with the belief in freedom, they commit the opposite blunder of making its application too wide; and we must rid ourselves, before going further, of an error which they have thus popularized.

This error consists of the well-known contention that unless we are free agents, legal punishments are unjust and all moral judgments meaningless; while unless we believe in our own freedom ourselves, no self-restraint of any kind will be possible. Such a contention as it stands is altogether untrue. Legal punishments arise from social necessities. So does a large class of moral judgments and self-restraints. We should be no more inclined to tolerate the murderer, the thief, the habitual cheat or liar, on the ground that their faults were in-

grained in their very natures, than the captain of a cricket eleven would be to tolerate an incompetent bowler, on the ground that the man bowled badly because he never could bowl better. Our punishments, our dislikes, our judgments, would have this very obvious meaning—that the objects of them were persons incapable of playing the social game, and could not, for that reason, be allowed to take any part in it, but would have to be shunned, shut up, or perhaps on occasion exterminated; while, so far as the question of selfrestraint is concerned, those who did not wish to be thus expelled from the playground would have the strongest motives for restraining, and also for exerting, themselves to such a degree as would secure their right to remain on it.

For the distinctive effects of a belief in human freedom the analyst will have to look very much deeper than the legal or private apportionment of penalties, disapprovals, or rewards, to conduct judged by its mere sociological consequences. The life-process of men in society is divisible into two parts, of which one consists of the judgments, regulations, and actions necessary for the attainment and maintenance of any kind of life that is desired — this being so far an indeterminate quantity; while the second consists of this quantity itself, as determined by the tastes and ideals of the men and women concerned. The first is comparable to the co-operation between architect, masons, and carpenters, no matter what be the

character of the building which they are co-operating to construct. The second is comparable to the tastes, desires, and aims which have determined whether the building in question shall be a college, a cathedral, or a gaming-hell. This second part does not affect the social mechanism of the former, but alters the purposes for which that mechanism is used; and it is only according to the purposes for which it is used that the mechanism possesses for man any appreciable value.

Now between these two parts into which the practical life-process is divisible, there exists this broad difference. In the first—namely, that which consists of mere sociological co-operation, what men are, is estimated solely with reference to what they do. In the second—namely, that which comprises all the higher drama of life, what they do. is estimated as a manifestation of what they are. Thus, honesty in an administrator of public funds is sociologically valuable as a guarantee that the funds will be honestly administered; but among his friends, the man's official integrity is valued mainly as a sign that he is at heart honest. In the one case, each person is an official whose value consists in his performances; in the other, his performances are valuable because they are expressions of his personality. Personality, in fact, is the primary conception which lies at the root of all super-sociological life, or the kind of life which is susceptible of moral and mental civilization; and the importance of the belief in freedom con-

sists in this, that the belief in freedom is at the root of our entire conception of personality.

Our analysis of our own conceptions is apt to be so imperfect that the fact just stated is but very partially understood. When most people talk of believing in moral freedom, they mean by freedom a power which exhausts itself in acts of choice between a series of alternative courses; but, important though such choice, as a function of freedom is, the root idea of freedom lies deeper It consists in the idea, not that a man is. as a personality, the first and the sole cause of his choice between alternative courses, but that he is, in a true, even if in a qualified sense, the first cause of what he does, or feels, or is, whether this involves an act of choice, or consists of an unimpeded impulse. Freedom of choice between alternatives is the consequence of this primary faculty. It is the form in which the faculty is most noticeably manifested; but it is not the primary faculty of personal freedom itself. That this faculty of the self-origination of impulse is really what we mean by freedom, and what we mean by personality also, is shown by the only supposition which is open to us, if we reject this. If a man is not in any degree, be this never so limited, the first cause or originator of his own actions or impulses, he must be the mere transmitter or quotient of forces external to his conscious self, like a man pushed against another by the pressure of a crowd behind him. In other

words, he would have no true self—no true personality at all.

Having, then, seen what the belief in freedom means, let us consider the effects of it as embodied in actual life. We will take first three particular examples, and will then consider the matter in a more general and comprehensive way. The particular examples shall consist of three phenomena which have a high and typical importance in the life of civilized man. One shall be the love of the sexes; another shall be heroism in the face of physical danger; the third shall be forgiveness of injuries, or that general charity of judgment which is forgiveness in a diluted form.

To begin, then, with the love of lovers, as civilized human beings value it; the raw material of the emotion is a simple sexual appetency, which is, like the high spirits of kittens or frisking lambs. independent of any belief, and lies below its level. It is an affection of the non-conscious part of the organisms of those concerned, which is thrust into the field of their consciousness, like the promptings of thirst or hunger; and men who are familiar with this crude organic appetency, and also with the civilized love which is what we have here in view, will be helped in understanding the distinguishing characteristics of the latter by comparing the two and considering how they differ. The essence of the difference will be found to consist in this—that, whereas the organic appetency is a desire for the woman's person, the developed

passion of love is a desire for her personality, and, being a desire for it, implies a belief concerning it.

How, then, is the personality which is thus believed in conceived? It will be seen at once that the primary characteristic imputed to it is precisely that which has just now been described. is a power in the personality itself of originating its own impulses, so that when a woman gives her heart to her lover, it is she herself who gives it, and not a long train of causes combining to direct on him a force with which her organism is already charged, as a hand might, directing water which is spurted through a movable nozzle, and itself owes its impetus to some distant pump or reservoir. That such is the case will be obvious when we consider the primary demand which, in all the higher kinds of love, the lover makes of the beloved—the demand, namely, that she shall be true and faithful. The simplest form which this demand can take is the prayer which the lover, on occasion, is sure to address to his mistress, that she will, when he is absent, remember him, or an expression of his belief that she is perfectly sure to do so. Now what does this belief mean? Does it mean that, having taken into account the neighborhood in which the loved one dwells, and the people she is likely to meet, he thinks it improbable that she will encounter any other men by whom her amative instincts will be irritated more strongly than they are by him? On the contrary, it means that, whatever temptations might beset

her, mental or physical, on the part of would-be rivals, there is some principle of fidelity in herself which makes her immune to all. In what, then, does he suppose this principle of fidelity to reside? Does it depend on the fact that, according to his estimate of probabilities, her memory-cells are as likely to retain a flattering and desirable image of him as her body generally is to retain its health, and that the chances are against any accident, such as a violent blow on the head, inflicting on her any cerebral injury by which this image would be expunged? On the contrary, his belief, if analyzed, would be found to mean that, even should such an accident occur, a self would survive in spite of it which was true to his memory still. and which, though obscured by the misfortune, was not either sullied or destroyed by it. The lover's creed is Iago's. "It is in ourselves that we are thus and thus. Our organisms are the gardens to which our wills are gardeners."

That this belief plays the part which is here assigned to it is attested not only by the private experiences of most civilized men, but also by all the great poetry in which the passion of love is dealt with. Such poetry is, in Shakespeare's words, a mirror held up to nature; and it is only recognized as great because it reflects faithfully. I will not indulge in quotations, for most readers of cultivation can supply them from their own memories. I will content myself with referring to one of the most remarkable love-poems of an-

tiquity — namely, that which Catullus wrote on the degradation of Lesbia, the "Lesbia illa" who was loved by him more than "his eyes and life," and who sank at last to the embraces of "the magnanimous nephews of Remus." Here the passionate belief in the tragic freedom of personality is expressed in relation to man's love for woman, as emphatically as Augustine or any other saint could have expressed it with regard to that greater mystery, the love of man for God; and from Catullus to Dante, from Dante to Shakespeare and Goethe, all the great poets of the world tender the same evidence; and the great poets, let me repeat, are only great because they utter what men in general, though they cannot utter it, feel.

The instinctive praise bestowed on the ideal hero, or even on any one who approaches the hero's character is another typical element in the texture of our civilized judgments; and here again the same story repeats itself. A man who, for some great end, undergoes prolonged peril, and deliberately wills to die for the sake of that end. if necessary, is no doubt valued partly as a good public servant, just as a good rifle is, which receives its own praise also; but a comparison between our admiration of the man, and our judicial approbation of the mechanism, will show us what the essential element in our admiration of heroism is. It is admiration of conduct which originates in the man's conscious self, which he has deliberately chosen when he might just as well have

chosen its opposite, and which is not imposed on him by conditions, whether within his organism or outside it, as much external to the conscious choice itself as the talents of a gun-maker are to the gun made by him.

A case even more interesting is to be found in the act of forgiveness; for forgiveness is an act which, in the absence of a belief in freedom, not only would lose its meaning, but could not take place at all. To forgive an injury implies that, bad as the offence may have been, the man who committed it was better than his own act, and was for this reason not constrained to commit it; and while it is only the assumption of a better potential self in him that makes him a subject to whom moral blame is applicable, it is only for the sake of this self that forgiveness can abstain from blaming. The believer in freedom says to the offending party, "I forgive you for the offence of not having done your best." The determinist says, "I neither forgive nor blame you; for although you have done your worst, your worst was your hest also "

And now let us pass from these particular cases, to conduct and character taken in a more general way. Here again we shall be helped in reaching the truth by considering how life is reflected in great literature; and literature will show us that three-fourths of life, as enjoyed by us, and as stimulating our interests, depends on the personal judgments which we form of ourselves and of one

another. The poems of Homer and Dante, the dramas of Sophocles and Shakespeare, would be nothing if we abstracted the element of personal iudements from them. Achilles, Thersites, Hector, Helen, Agamemnon, Clytemnestra, Antigone. Hamlet, Macbeth, Othello, and all the figures that people Dante's Hell and Heaven — these, as submitted to our judgment, are the substance of the poems that deal with them; and if we did not suppose them free our judgments would have no meaning. Some of them no doubt are exhibited in the chains of Fate; but they interest us as born to freedom, and not naturally slaves, and they pass before us like kings in a Roman triumph. Once let us suppose these characters to be mere puppets of heredity and circumstance, and they and the works that deal with them lose all intelligible content, and we find ourselves confused and wearied with the fury of an idiot's tale.

From great imaginative poetry let us turn to great satire; and the same fact will be illustrated in an even plainer way. We will take, for instance, Pope's description of Addison, in which personal satire has reached perhaps its highest stage of perfection:

"Peace to all such: but were there one whose fires True genius kindles and fair fame inspires: Should such a one, too fond to rule alone, Bear, like the Turk, no brother near the throne, View him with scornful yet with jealous eyes, And hate for arts that caused himself to rise,

Damn with faint praise, assent with civil leer, And without sneering teach the rest to sneer, Like Cato give his little senate laws, And sit attentive to his own applause, While wits and templars every sentence raise, And wonder with a foolish face of praise.

Who must not laugh if such a man there be? Who would not weep if Atticus were he?"

The whole point of this passage, whose every phrase has become a proverb, is revealed in the closing question. Why should we weep if Atticus is such a man as this? Because it was open to Atticus to have been a man of a very different kind. Were it not for this supposition, the satire would have no more force in it, than it would have were it made up of statements that Atticus was not so tall as some men, or not so strong, or that he had not a good digestion.

Or again, let us turn to history, and take some conspicuous quality, the presence or absence of which in such and such public characters forms a constant theme of the historian. Let us take constancy to principles on account of their assumed truth. Now this quality, when possessed by a public man, although it is often useful, is just as likely to be mischievous; and yet all historians and biographers unite in praising a statesman who, regardless of his own interests, has been constant even to principles that were false, if he honestly held them to be true; while if a partisan is anxious

to blacken the character of an opponent, the most damaging charge he can bring against him is, in the opinion of everybody, the charge of abandoning principles of whose truth he is still convinced. Here once more it is obvious that all this praising and blaming is based on the assumption that the person praised or blamed is the originator of his own actions, and not a mere transmitter of forces. Unless he is conceived of thus, the praise or blame launched at him on account of his consistency or of his inconsistency has no target which it can hit, but passes through the man's constitution, and spends itself on the universe generally, losing in doing so the whole of its original character.

A quality such as this, of consistency in public life, is here specially instructive, because it brings to bear on our problem the judgment of mankind at large, in one of its most elaborate and deliberately explicit forms. And to this quality we might add any number of others, on ascribing or denying which to the objects of their likes or dislikes historians and biographers expend a large part of their energies.

Let us think of some of the questions which such writers debate, and in which the ordinary reader takes often so keen an interest. Did Gibbon exaggerate the virtues of the apostate Julian? Did Froude exaggerate those of his hero Henry? Was Bacon's philosophic method original? Was Cromwell's principal object his own glory, or God's? Were Chatham's "incoherences and fierce ambi-

tions" really atoned for, as one of his biographers asserts, "by his grand nature and his heroic ideals?" All such questions as these which, for historians and the world generally, form so large a part of the interest with which history inspires them, would be absolutely meaningless if it were not for the inveterate belief that a man's significance for men resides primarily in what he makes of himself, not in what he has been made by an organism derived from his parents, and the various external stimuli to which it has automatically responded. If man is no more than a creature of birth and circumstances, what is the meaning of debating whether the grandeur of Pitt's nature did or did not atone for his incoherences and his fierce ambition? One might as well debate whether the fact of the Thames being so thoroughly English did not atone for the dirt of its waters below London. What is the use of debating whether Bacon's method was original, when, on the principles of scientific determinism, there is nothing original in the universe? On determinist principles, one might just as sanely debate whether Saturn is original in surrounding himself with his peculiar rings; or whether the qualities of a particular magnum of champagne had been added by the wine to itself after it had been corked up in the bottle, and did not depend on the grapes of which the wine was made, and the methods employed in fortifying, in corking, and maturing it.

What should we think of some Macaulay or

Tacitus, having drunk such a magnum and been bitterly disappointed in his expectations of it, had described it in the following way, as though it had been some obnoxious statesman: "Born of the noblest grapes, matured in the most famous cellars. it enjoyed these advantages only to disregard or abuse them. The grandeur of its inherited nature it sacrificed to its own incoherences. A lukewarm friend at night, and a cowardly foe next morning; prodigal of its bubbles to the air, but conveying no flavor to the palate; it frothed, but it did not sparkle; it stupefied, but it did not exhilarate. Yet retaining still, as it did, its cork with the golden foil, the label which was the blazon of its house, and the clear and glorious color for which all its race had been celebrated, we may say of it, in words suggested by those of a great historian, that it was a wine worth drinking if only it had never been drunk." Language such as this is no more absurd and irrelevant when applied to a magnum of champagne than it would be when applied, as it is, to kings, statesmen, and philosophers, unless we believed that the latter possessed some faculty of self-direction, which science can discover in man no more than it can in a winebottle.

To this criticism, however, a certain answer is possible, and it is one which has been elaborately made by a distinguished scientific thinker. Let it be granted that the denial of freedom does reduce personalities to mere intermediate links in one vast

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system of causation. Let it be granted that they are thus robbed of all individual interest. This. savs Herbert Spencer, is the precise result to be aimed at, as the first condition of studying history rationally. History, he says, as studied and written hitherto, is useless, for the very reason that it treats historical characters as though they were really the authors of the acts that have made them prominent. Neither they nor the mass of mankind are more than "proximate causes"; and the only true explanation of what they have done and been is to be sought in "the aggregate of conditions" out of which they have all arisen. The biographical method of history is the method, he says, of "the village gossip"; and we should never make a single discovery with regard to human progress if we "read ourselves blind over the biographies" of all the great men that ever existed. Cæsar, Frederick the Great, Napoleon, are phenomena without meaning unless we see them as causes, which are themselves merely effects of other causes preceding them. Such was Spencer's theory; but let us ask how he applied it when dealing with practical matters. It is impossible to imagine a man who disregarded it more completely. When he wrote as a practical politician, no one ever excelled him in the personal rancor with which he attacked the characters of Frederick and Napoleon—the greed of one, the criminal egotism of the other. In dealing with his own concerns, he was at the greatest pains to show that he-his own

private self, and not the self of Darwin-was first in conceiving and formulating the general theory of evolution, a matter which on his own principles was wholly void of significance; while he, who had denounced biography as food for "the village gossip," devoted his later years to compiling two enormous volumes devoted entirely to a microscopic biography of himself — to the difficulties and discouragements he encountered and his own strength of will in overcoming them. Spencer's life was, no doubt, one of singular intellectual heroism, and he cannot be blamed if he was modestly conscious of the fact: but the admiration which the world feels for him, and the claims made by him for himself, are intelligible only on the supposition that he possessed a free-will of his own. which, while dismissing it in theory as a village gossip's illusion, he, like everybody else, accepted in practice as a reality. Thus one of the few deterministic thinkers who have deliberately attempted to interpret concrete life by determinism is in his own person one of the most interesting witnesses to the impossibility of interpreting it intelligibly without a covert reintroduction of the plain man's belief in freedom.

Let us now sum up the results of this brief survey.

Life, as a conscious process which is the object of the will to live, being wholly an affair of values, and being at first an affair of values that are purely sensational, we started with observing that, when

it becomes civilized it owes the superiority which civilized men ascribe to it, to the fact that the sensational values have been multiplied, enriched, and refined by the action of a system of beliefs, of which the belief in freedom, self-causation or personality, is one of the most important. Such being the case, we have watched this belief at work in the creation and maintenance, firstly, of certain particular values, and, secondly, of the valuation applied to human conduct generally. We thus saw that love which, in its ideal form, is, apart from direct religion, the master-passion of life, allying itself with all ideals from that of sanctity to those of adventure, giving their main interest to the drama, the poem, and the romance, and vitalizing social intercourse as a possibility, an experience, or a recollection, would, were the belief in freedom really expelled from our consciousness, sink to the level of a bald animal appetite, having no other concomitants than its own passing satisfaction. We saw that the heroism of the hero would suffer a similar degradation, becoming an idiosyncrasy of temperament, like the courage of a fighting-cock; and we saw that forgiveness which, perhaps even more than love, is a type of the qualities in one man which rouse a response in others, would be not merely degraded, but would disappear altogether, its place being taken by the blank apathy of the determinist, which is in its turn as typical of the life-values which determinism leaves us as forgiveness is of those which the

belief in freedom creates. A more general survey of conduct yielded the same results. We saw that although, without any belief in freedom, conduct would, according to its social usefulness, be still divisible into good conduct and bad, it would be good or bad in accordance with its outward effects only, and would lose the whole of its interest as an index to internal character. The character in short would be the effects, and if we attempted to get behind them, we should find ourselves in contact with something that was not human character at all, but was a plexus of causes and conditions to which no human judgment was applicable, and in which it was impossible to take any human interest. In other words, while in actual life, as on the stage, personalities, as such, are the things that mainly interest us, all real personality would in this case be eliminated. The belief in human freedom, then, is as essential to our moral and æsthetic life, as, within its own limits, is the counter-belief in the general uniformity of nature: and those even who reject it theoretically are compelled unconsciously to assume it.

The reader, however, must recollect that nothing has been said thus far to the effect that the belief in freedom can itself be reasonably defended. On the contrary, we are still supposing that scientifically it is out of the question, and indeed it is impossible to examine the practical effects of it, as we have done, and not to be conscious at every step taken that the facts of our

concrete life, apart from the values attached to them, can be explained without this belief far more easily than with it. In itself it is a will-o'-thewisp which constantly eludes pursuit, vanishing when thought too nearly approaches it, shining out again only when thought recedes, and which we might well dismiss as a trick of our own eyesight, if it were not for the definite effects of the light on surrounding objects, and the way in which they lose all color the moment the light ceases.

In the following chapter we will consider the effects of a belief in God.

MENTAL CIVILIZATION AND THE BELIEF IN A CONSCIOUS DEITY

In all cities of civilized men, from the West to the remotest East, from the Thebes and Babylon of antiquity to the Rome of the modern world, workshops, places of business, private dwellings, and palaces have been dwarfed individually by the superior majesty of temples. In this architectural phenomenon we have an image of the human mind. The other buildings subserved ends which were merely means to some further end. The temples subserved some end which was supposed to be an end in itself, and were symbols of the importance attached to it by the instinctive beliefs of man.

The nature of this end has been conceived of in various ways, but the root ideas respecting it have in every case been the same. It has been conceived of as the realization of a certain specific relationship between man and some Power which is incomparably greater than man, but which is nevertheless such, and connected with him in such a way, that it responds to his conduct and even to

his thoughts and feelings, and that his highest welfare depends on the attitude which he adopts towards it.

This Power was at first conceived of as plural. It was split up by primitive man into a large number of deities; and man's business with them at first was supposed to be mainly that of appeasing their malevolence, or securing their aid by bribes. But, as Spencer observes, the progress of civilized thought constantly tended to merge these many deities in one, the Greeks having reached this result as philosophical thinkers, while still officially worshipping the entire tribe of Olympus. And along with this change there has also taken place another, which Spencer does not mention, but which is even more important. As the many gods were, by thought, gradually merged in one God, man's conception of godhead as a something to be cajoled or pacified gave place to a conception of it as a something with which men might hold communion. For Plato it was known in man's longing for whatever is good and beautiful. For Plotinus. through a conquest of the flesh, it was known in a saint's ecstasy. And the God of modern religion. whatever He may be else, is a synonyme for that in which all aspirations are realized; in which intellect answers to intellect: in which heart answers to heart; in which every vague desire for a something we know not what-for something which, as Plato says, "we augur but cannot see"—finds its proper object and is at rest.

Christianity, it is true, specializes this general conception, but, except for this, does nothing to alter its character. God, therefore, may be here regarded, in accordance with what has been said already, as the personal and responsive object of any aspiration of any kind which transcends this life's possibilities, no matter what its character; and we will now go on to consider how this belief, wholly inadmissible as it is on current scientific principles, is implied in civilized life, and is practically necessary for its maintenance.

And here again, as when dealing with the case of freedom, we shall not look for the effects of the belief in question in any direct expressions of it such as creeds, prayers, adorations, or any rule of life specifically and intentionally religious, but in quarters where it operates indirectly, and does not show itself on the surface. We shall look for it in those aspirations or self-orientations of spirit, those tastes, those propensities, and moral and æsthetic discriminations, a marked want of which stamps a man, in the eyes of everybody, not as irreligious, but as tasteless, foolish, or degraded.

There is no difficulty, so far at least as general conceptions are concerned, in realizing what these are; for thinkers of all schools, in a general way, are agreed about them. Professor Haeckel, who, in the opinion of his opponents, is the arch-materialist of to-day, asserts as clearly as the most mystical Christian that they resolve themselves into an appreciation of three things — the True,

the Good, and the Beautiful. Believing himself in no God, he calls these "the three Goddesses," and declares that the life of civilized and cultured men would cease to be civilized, would cease to have any value, if it were not constantly lifting itself towards these three ideal ends. Spencer practically says just the same thing, so everybody thus far is in a state of happy agreement. The True, the Good, and the Beautiful may be understood in various senses; but in every civilized society, and in every stage of its civilization, they have been understood in some sense, and in that sense they have been valued. Indeed, without the ideas and judgments corresponding to these words, it is evident that no mental civilization could possibly exist at all; for any one who preferred their opposites — the False, the Bad, and the Ugly would be self-condemned as a monster unfit for society of any kind.

Let us begin, then, with examining the value attached to Truth. The value of Truth, in one sense, is independent of any belief except a belief in the lessons which social experience teaches us—that is to say, its value in social and business intercourse. Without a general conformity to truth, as understood thus, no society could exist—not even a society of rooks, members of which give warning to the others on the approach of danger. But though such Truth is essential to all gregarious animals, and to civilized men more especially, it is not coextensive with Truth as civilized men

value it. It possesses, indeed, none of those peculiar qualities attributed to it by civilized men as distinct from birds and savages. All societies. in proportion to their mental culture, are pervaded by some idea that Truth, apart from its social utilities, possesses a value for its own sake which, if indeterminate, is profound. This fact is illustrated by the countless casuistical controversies which have taken place, and which take place still. with regard to the familiar question of whether, or in what sense, a lie can ever be justified. Here we have the idea of a merely social truthfulness. for which the scientific explanation of existence is perfectly competent to account, beginning to develop itself into the idea of Truth of a wider kind: and it is this kind of Truth which alone concerns us here.

Truth, thus valued for its own sake, does not mean particular truths, but the general facts or principles on which man's whole existence depends. "The gladness of true heroism," said Tyndall, "visits the heart of him" who can honestly say that "he covets Truth" in this sense, even though the pursuit of it leaves him no remnant of the beliefs which he once most valued. The wise man, says Spencer, will fearlessly follow such Truth knowing that, whatever happens, all will in the end be "well." I will follow such Truth, said Huxley, even though it lead me nowhere but into the tangles of the "selva oscura." The pursuit of such Truth, said Nietzsche, "we prize more highly

than any other delight," while Professor Haeckel says that it turns all nature into a "cathedral," which, far more efficaciously than any Christian place of worship, lifts men up "above the misery and prose of life." And if this reverence and desire for Truth, in the deepest sense of the word, has existed to some extent, as it has always done, in civilized societies generally, the modern world exhibits it in a condition of development and orderly vitality to which it has never obtained in any previous age. This desire and reverence have now definitely associated themselves with the interpretation of nature by means of the scientific method. It is, therefore, in the modern devotion to science that we find our best example of that appreciation of Truth which we are now going to examine as related to the belief in God. devotion to science, in this connection, possesses a peculiar interest, because it not only is, in the opinion of men generally, not identified with the religious belief in question, but is also by men of science themselves—or at least by most of them —held to be inconsistent with it.

A careful analysis of the passion for scientific Truth will yield results which will probably be a surprise to many. The personal interest in reality, as it exists in the scientific universe, the longing to be brought, through knowledge, into close personal contact with it, will, on analysis, be found to contain in solution a belief that there is in the universe some Principle or other responsive to the

interest which man, its minute product, feels in it. This belief has hitherto been unsuspected for two reasons. One undoubtedly is the fact that the official exponents of religion have largely refused to admit that any such Principle can exist, unless it is a God who wrote with his own finger a single series of books for the benefit of one small tribe, disturbing for its benefit also the whole course of the solar system. But a deeper reason for the failure of scientific men to recognize a belief in the existence of a responsive cosmic Principle as the true rationale of the scientific passion for Truth consists in the fact that science, as at present interpreted, has no language in which such a belief can be expressed, and having thus rendered it dumb, not unnaturally supposes it to be dead. A very little reflection, however, will be enough to show us that this belief, which men of science repudiate, is really the source of the passion by which all their efforts are inspired.

It is a mere truism of psychology to say that nothing can be of any interest to us except for the sake of the effects which it produces in our own consciousness. We are interested in countless things which we do not regard as mental, and which cannot be looked upon as making any mental response to us—such as houses, trains, wines, and the natural facts connected with them; but we feel this interest only because the things in question are forced by us to translate themselves ultimately into terms of our own enjoy-

ment. But mere facts, as unrelated facts, have no meaning whatever for us. Dr. Johnson, as an illustration of his view that foreign travel was useless, asked what Topham Beauclerk learned by going to Egypt. Merely, he said, that there was a green snake at the top of one of the pyramids. A series of facts unrelated to ourselves, would have no more meaning for us than the existence of Topham Beauclerk's snake. If nature, then, in its particulars is of interest to us so far only as it ministers to our conscious wants by direct material service, nature considered in its totality can be of no interest to us either except in so far a knowledge of it ministers to our wants also; but since it is obvious that by studying nature in its totality we shall be able to extract from it no material service whatsoever, it can interest us only because in proportion as we study it we believe that we shall catch the whisper of some mental message from a Mind whose character is congruous to all that we most value in our own. If it cannot be our physical servant it must be our mental companion; and if it be our mental companion it must be what is meant by a Deity. Unless we surrender all attempts at precise thinking, it is logically and psychologically impossible for us to conceive of it in any other way. Nature in its totality, if we refuse to conceive of it thus, might just as well be an enormous humming-top at whose performances we might, for moments, find some amusement in gaping, like a boy whom Ruskin once found in

Ireland amusing himself by spitting into a river from one parapet of a bridge and watching his saliva float by from the other.

Truth, then, as the object of the scientific passion, cannot possibly be, for the men whom that passion so strongly actuates, the kind of Truth which it seems to be according to their official analysis of it. It is evident that their minds subconsciously must attribute to the universe in its totality the precise quality which their conscious logic denies to it. That is to say, they must subconsciously regard it as capable of responding to the passion which aspires to explore its secrets, and of doing so in a language congruous to that of the aspiration itself. Thus in so far as the modern devotion to Truth is concerned, the very science by which God is denied is itself a search for God.

That such is the case has been recognized very clearly by the keenest, the most original, and the most outspoken, of the modern champions of atheism. "Everywhere," says Nietzsche, "where the spirit of the age works seriously, it works without any ideal except the ideal implicit in the fact that it wills the Truth. But this will, this ghost of an ideal, is, if you will only believe me, the ascetic ideal of the Christian religion itself, under a yet severer, a yet more unearthly guise—denuded yet more completely of all external trappings. Or rather, it is not so much the ghost of this ideal as its solid core and kernel. Modern

atheism, in short, of the most absolute and consistent kind, is merely the catastrophic climax of two thousand years of the Christian cult of Truth, which ends with denying itself even the comfort of a lying faith in God." All that here calls for correction is the perversity of this last paradox. The obvious conclusion to be drawn from Nietzsche's own criticism is, not that the modern scientific cult of Truth is an old religion abandoning its belief in God, but that it is the same belief reborn, which has not yet learned to re-express itself.

Science, then, which is for the modern world the supreme symbol of Truth in the wider sense of the word, and has associated Truth with the extinction of all religious belief, derives all its vitality as a passion from the belief which its lips repudiate. Without a belief that the universe is identified with a Power who is consciously responsive to our own personal consciousness, science, with Truth for Truth's sake as its object, would cease to exist, having lost all possible meaning, though it would remain the employé of Medicine, Commerce, and Manufacture. And what holds good of Truth as valued and pursued by science, holds good of Truth for its own sake, let us look for it where we will.

And now from the idea of Truth, let us pass on to that of Goodness, with which we shall find it convenient to associate the idea of Beauty, as not for our present purpose requiring separate treatment.

Of things which are merely good as means to intermediate ends - such as steam - coal which is good because it generates steam in engines, and engines which are good because they propel ships —we are naturally not speaking here. We are speaking of things whose goodness is realized in themselves. Now, whatever Goodness, or the Good. as thus understood, may be, it must necessarily be this at all events—namely, a certain state of consciousness which in some sense or other is desirable. Taking, then, the things which any civilized race calls good, whether states of feeling themselves, or the acts or objects which embody them, and not troubling ourselves to ask particularly what these good things may be, let us consider them as a whole in the light of a single fact. which science, having learned it from the introspective philosophies, has illustrated and verified for itself, and invested with fresh authority.

This is the fact that all knowledge is relative, in the sense that external things have none of the qualities by which we know them, but are known to us only as causes of effects in our own consciousness. We have dwelt on this fact already in a previous chapter, when we illustrated it by the case of a signal-lamp which is commonly called red, because most men who look at it experience a sense of redness, but which color-blind men for a similar reason call green. Let us now give this fact a little further attention. The principle involved in it does not apply only to simple sensa-

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tions such as color, or as taste, scent, sound. It applies to states of consciousness which, though having sensations as their basis, are complicated by associations, habit, racial temperament, and so forth. Thus the same perfumes, the same articles of food, are to one man delightful and appetizing while they nauseate or repel another. The music to which the savage dances would make the Wagnerian writhe. So, too, with female beauty—the foot that in China fascinates, outside China is ludicrous. The Frenchman turns in horror from the figure of which the rajah dreams.

And with what we call Goodness, the case is just the same. Like greenness, niceness, nastiness, female attractiveness and ugliness, it comes into being with, and has no existence apart from, the consciousness of those who recognize it; and similarly the quality of Goodness—the quality of supreme or ideal desirableness—is identified by different individuals with effects produced in their consciousness by widely different conduct on their own part or the part of others.

Thus Jael, the murderess of the man who had eaten her salt and trusted her, was blessed among women in her own eyes and those of her nation, while she would, among Arab tents, have been execrated as a monster of treachery. Among the Spartans Goodness was found in the consciousness of successful theft. Among many tribes it is found in the consciousness of successful butchery. For girls in ancient temples it was Goodness

to surrender their chastity, for girls in Christian cloisters Goodness lies in guarding it. It is one thing for a Paul, another for a Marcus Aurelius; one thing for a Spurgeon, another for a Goethe or a Shelley, and again another for the mutilated Indian fakir. There are as many types of Goodness, in short, as there are types of mental civilization.

Now if human consciousness is for ourselves the only kind of consciousness that exists, Goodness is merely a name which men agree to give to any states of consciousness which they experience as pre-eminently satisfying; and hence, since different individuals, different races, and the same races at different stages of their development, find this pre-eminent satisfaction in states of consciousness that are so different—since some find it in the animal joy of living, others in the pride of conquest and the virtue that is synonymous with valor, others in a completeness of bodily and mental culture, others in the austere rapture that rewards the discipline of the ascetic—one kind of Goodness must be just as good as the others, for there is no common standard by reference to which they are comparable. Landor, who "warmed both hands before the fire of life," the saint whose life is crucified for the sake of Christ, the dying soldier of Islam anticipating the Houris of Paradise, the husbandmen of pagan Italy whose lot Virgil envied, would "sua si bona norint" all and equally be "fortunati nimium." Each would have realized what was the supreme Good for himself.

RECONSTRUCTION OF RELIGIOUS BELIEF

Here, however, we come to what is the real heart of the matter. Though every kind of Goodness which men have valued and cultivated as such must, if human consciousness is the only consciousness in question, be good only, and good equally, for those who so regard it, it has never been recognized as possessing this relative character by any of the persons who, under any one of its forms, have pursued it themselves, or urged its pursuit on others—by any of the great teachers such as Gautama or Zoroaster or Socrates or Christ or Mahomet, or by any of the great societies in which its pursuit has flourished. It has always been looked on as a something which is, in its essence, absolute—which is above and independent of the vagaries of individual taste. The Roman idea that it was good to die for one's country meant not that to do so was the height of self-indulgence for everybody, but that those who chose such a death in preference to other satisfactions were in contact with some verity which raised them above those who did not, even in the opinion of these last them-In the Christian societies which superseded the Roman, honor, which was for the world the ideal Goodness in a man, and virginity which was for the Church the ideal Goodness in a woman. are illustrations of the same fact. Honor was not good because it made knights happy; knights were happy because they retained their honor. So. too. the Church, and the world which received its teaching, certainly never meant that virginity was

a good thing because the abstentions involved in it were naturally pleasant to everybody. They meant that it was good in some absolute and obiective way, let the natural tastes of the individual be whatever they might be. And this conception of the nature of Goodness as absolute has tended to become more and more unmistakable in proportion as the influence of the Churches over secular civilization has declined. The new culture, in denouncing or deriding the Churches for making Goodness a means of escaping hell, or of gaining admittance to the revels of the New Ierusalem. has insisted with an added emphasis on its value for its own sake only—on the objective and selfcontained superiority of certain states of consciousness to others. The monumental column, marked with degrees of Goodness - of high, low, base, noble, beautiful, ugly, and so forth—which it thus sets up, and which is not a record of what men's tastes are, but a confession and reminder of what all men admit they ought to be, is for the mental civilization of the modern world a structural support, in the absence of which the entire fabric would collapse — art and literature suffering the same fate as sermons.

The reader will recollect that, in considering Goodness thus, no question has arisen, except for purposes of illustration, as to the character of the states of consciousness to which the quality of Goodness is ascribed. All that concerns us is the fact that, ascribe it to what we may, Goodness is

conceived of as having a value not contingent on our own individual recognition of it. Such being the case, then, we are brought to the final question of how this conception of any absolute Goodness is justified—of how it can be stated in scientific or even in formally reasonable terms. How can there be such a thing as absolute Goodness any more than there can be such a thing as absolute greenness, or an absolutely pleasant temperature for a hot bath? Green things are green only for eyes that see them so. A pleasant temperature is pleasant only for those pleased by it. How, then, can Goodness, which, like pleasantness, is an affection of our personal consciousness, be anything apart from what different people think it to be? How can it be conceived of as possessing any independent reality of its own?

When the question has been thus prepared, the answer becomes self-evident. The absoluteness of Goodness, its independence of individual tastes, in short the whole of the special value attached to it, fails to be nonsense, and is capable of being intelligibly stated, on one supposition only—the supposition that there exists a supreme and universal consciousness, such as the theist means by God, to whom certain things are good, and certain things are bad, which man in his own degree is able to aim at or reject. The reason of this is evident. If any such thing as absolute Goodness exists, it must resemble Goodness of the relative and contingent kind thus far, that it can only be

Goodness at all by being Goodness for a conscious mind of some sort; and if it is to be absolute in any intelligible sense, and not contingent on the tastes of individual men, it must be absolute because it is Good for some conscious Mind that is absolute, all-comprehending, self-existent, eternal—a Mind whose character transcends the character of man's, but with which, by willing the Good, man can put himself in connection.

Thus our analysis of the value of Goodness brings us to the same point as that to which we had been brought already by our analysis of the value of Truth. In proportion as we ascribe value to one or the other for its own sake-to Goodness because it is Goodness, or to Truth because it is Truth—we ascribe to it a power of uniting us to that larger life surrounding us—a kindred universal Mind—from which we have ourselves sprung. And the belief that this Mind which is in, or which is, the universe, is so far personal as to be aware of and respond to our feelings—in other words, that it is God—is the only form of thought by means of which we can intelligibly represent to ourselves the validity of any hope or interest which carries us beyond the mere affairs of the moment, or is not ultimately referable to the satisfaction of lust or hunger.

We have no need to vilify either of these simple appetites; but they do not contain in themselves, be they never so well regulated, the essential principle of what we here mean by civilization. The

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progress of civilization, as exhibited in art, science, and literature, in the deepening, the enrichment, the adornment of social life—direct or conscious religion being left out of the question-has essentially been a progress upward, in the opinion of those concerned. It has consisted in the establishment of a number of points of contact, real or supposed, between man's terrestrial existence and existence taken as a whole, these points of contact being Truth, Goodness and Beauty. The crude sensational pleasures with which the value of life begins, are transfigured and multiplied by association with the three ideal qualities; and civilization or culture thus gradually arises. Such civilization or culture, though it is often the rival, and sometimes the avowed foe of the purely religious life which is consciously vowed to God, implies a belief, no less than religion itself does, that a Power exists who, even if He is held to differ from the God adored by the saint, is no less responsive and accessible to the higher activities of man. There is. in short, no way of giving validity to any such form of civilization—whether it be the civilization of Greece or Rome, or of the Christian ages of faith—except by means of a belief in a Power of the kind described, with whose general character the character of the civilization coincides. belief need not always, even at the time when it is most operative, be consciously recognized as amounting to a belief in any God at all, but it will be found to imply and issue in it, when its logical

content has been analyzed. Conversely, any conscious denial on our part that such a Being exists, or any form of agnosticism which reduces Him to a negligible quantity, is a denial of the value hitherto attached to everything, in the acquisition of which, or in the effort to acquire which, mental civilization has been held hitherto to consist.

We have, in arriving at this strict conclusion, had no need to appeal to religious or other sentiment. It has been enough for us to keep within the limits of well-known psychological facts, and dry mental analysis. In the following chapter we will consider briefly the effects on civilization of a belief in human immortality; and we will then reconsider the various results arrived at, in the light of considerations of a more or less extraneous kind.

VI

MENTAL CIVILIZATION AND THE BELIEF IN HUMAN IMMORTALITY

THE effects of the belief in immortality on the practical quality of life are more easily traceable than the effects of the beliefs in God or freedom. The following, indeed, have always been obvious to everybody. Most people have been distressed by a sense of life's seeming injustice, of promising talents never suffered to mature themselves, and of loves and valued friendships brutally cut short by death; while to many the mere prospect of one day ceasing to live, brings gloom and oppression whenever they allow themselves to think of it. The belief in immortality palliates all these doubts and pains; and such a result is, in each of these cases, important. But the belief has another result wider and more important still—a belief, moreover, in which all these are included; and we will consider this first.

In order that life should possess any civilized value at all, it is necessary that it should be taken seriously, and that the difference between what is good and bad in it should be felt to be of enormous

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magnitude. Indeed, the energies that produce, and the tastes that are implied in, civilization are proportionate to the interval by which the best in life is supposed to be separated from the worst.

Now in earlier days, when the earth was the centre of the universe, when the gods themselves dwelt upon earthly mountains, and their dealings with man, or even with particular men, formed the main excitement of their lives, man's imagination could present him with no rival to himself, and a doubt of his own importance very rarely occurred to him. A hero defied the lightning, and a tyrant imitated thunder, without any suspicion that he was playing an absurd part. Lucan dreamed of the day when it seemed that the stars of heaven might have looked down on nothing that was not Roman. To the Jew it seemed the most natural thing in the world that the Cosmic Principle should identify itself with the fortunes of a single town. In order that every act of man's life, every choice between good and evil, should be invested with an overwhelming interest, it was not necessary to believe that his life would be indefinitely prolonged.

But to-day, with the progress of knowledge, the entire conditions have changed under which man contemplates his own place in the universe. The protagonist of the universe yesterday, to-day he is one of its minutest products. Apart from any qualities with which belief may invest him, he is merely a vanishing bubble on the surface of the sea of being. How, then, is it possible to regard

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his choice between goodness and badness, beauty and ugliness, civilization and savagery, as possessing anything more than a vanishing importance for anybody? How will any one be able to take even his own existence seriously? Nor would the situation in this respect be altered appreciably for the better by the mere hypothesis of a God who, perfect and eternal himself, took notice, while they lived, of His imperfect and mortal creatures. For since no Goodness, not even the Goodness of God. can have any existence except in some conscious mind. even God's Goodness, though eternal, could not exist for man any longer than man continued to exist for himself. So far as man is concerned, God's eternity would cease with the death of man. as the reflection of the stars in a mirror ceases when the mirror breaks.

The belief, then, in man's immortality has a far wider effect than that of providing us with the prospect of a prolonged existence. By extending our lives into the future, it vindicates their importance in the present. It provides us, as it were, with a powerful spiritual magnifying-glass, which restores to its old dimensions what would else be daily dwindling. In other words, it has come to be, at the present day, a necessary preamble to any serious treatment of life; not because every one personally is anxious to live again—for many might prefer for themselves the prospect of a long night's rest; and not because every one is anxious to be restored to his dead acquaintances—for many

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might think this a very doubtful advantage; but because, just as the belief in God is the only logical form under which Truth and Goodness can be thought of as possessed of any absolute meaning, so is the belief in immortality the only logical form under which their meaning can be thought of as being for ourselves important.

And now from this general effect of the belief in immortality on life, let us turn back to those particular effects, of which we took notice first namely, the scope afforded by it for confidence that the injustices of this life will be redressed, that friends and lovers parted by death will be reunited, and that activities and self-developments arrested by death will be completed. We shall find that the general effect contains and implies all these. Thus, if it were not for the possibility which this belief suggests to us that the injustices of the present life will be some day redressed somehow, any Goodness ascribed to God would not only be meaningless for ourselves; it would not be even, in any true sense, conceivable. Any one can see this. But what is equally important is the fact, not perhaps equally obvious, that the effects of the belief in immortality on affection, effort, and self-development generally, do not end with the comfort which it offers to the bereaved and the unsuccessful: but depend on a characteristic which underlies all life, so long as it is invested with the values which mental civilization ascribes to it. This characteristic is that, whenever we realize by experience the value which civilization ascribes to certain mental conditions—such, for example, as the desire for speculative Truth—our experience, in proportion as it deepens, develops into a sense of its own present incompleteness, and points to some farther consummation not possible here. The sense that deep affection is stultified if death ends everything, is merely one example of a much more general fact. If affection is stultified by death, so is the desire for Truth, so is the desire for Goodness; for the value of neither of them, if they have any value at all, can be realized here except by way of a foretaste. The more highly developed the values of a mental civilization are—whether these values be associated with beauty, love, morals, or scientific truth—the more evidently do the values realized depend on values suggested. ever immediate realization for its own sake was an object, it was so in the civilization of Greece; and yet the thinkers of Greece, when they submitted life to analysis, were foremost in isolating the idea of a Goodness here unattainable, as an ultimate object to which all attainment points. And now when aided by science which dwarfs all terrestrial things, and draws away the veil from man's terrestrial pettiness, we carry the analysis of the Greek thinkers farther, and realize that, as was shown in the previous chapter, the ultimate object of civilization must be necessarily some approach to God—to an Existence which is in fact what man is only in aspiration—the nature of the

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part played by the belief in immortality will be clear.

The mere belief that life, as opposed to death, will be prolonged, if this carries with it no idea of a higher and wider development, is just as likely to degrade a race as to raise it. No Christian saint ever has believed, or indeed ever could believe, in a future life more vividly than the savages of Dahomey and Benin. For them to die is to pass into another world, as to pass through a door with us is to pass into another room; but with them the result of this remarkable gift of faith, is not to make life sacred, but to give them a diabolic contempt for it. When one of their kings dies a host of subjects is massacred, in order that he may have in the next world a suitable guard of honor, and their faith fills their capitals with the stench of human carcasses. The belief is essential, indeed is so much as conducive, to civilized life, only when taken in connection with a civilized belief in God, and it then is essential mainly for what may seem to be the indirect reason, that it provides this belief with sufficient space for its operations. our interest in the true and the good as means of approaching God, is limited by the short and precarious life of our organisms, our belief in God loses all practical efficacy, not only because the union with God could not last forever, but because, as things are, it could never take place at all, and because it ceases to be of very much moment whether it ever takes place or no.

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It is unnecessary to say more about this belief here, partly because its effects on civilized life are included in the effects of the beliefs in God and freedom, and consist mainly in rendering these efficacious; but partly also because, if we accept the belief in freedom as being, what we have seen it to be, essential to civilized life, the belief in immortality, as has been pointed out already, introduces no new difficulty. If a man's will is really independent of his body—if in any sense it is more than a mere function of it—there can be no a priori reason for supposing that it comes to an end when his body does. The probability is the other way.

In the following chapter our analysis of the practical effects of religious belief on the quality of civilized life will be reconsidered in connection with the attempts of scientific thinkers to provide us with a substitute for it of a purely scientific kind; and in this way the results which we have reached already will be brought into yet closer connection with the concrete facts of experience.

VII

THE PRACTICAL FUTILITY OF THE PROPOSED SUBSTITUTES FOR THEISM

No doubt to many people the whole of our present analysis, which begins with identifying civilization with certain ideals and aspirations, and then exhibits the fundamental doctrines of religion as the logical basis of these, and their sole logical justification, will seem little better than a playing with words and dreams. The true business of man is, they will say, with reality, and not with the false colors which the moonlight of idealism throws on it, and which are valued only as hints that we shall one day get the moon. They will, however, see reason to revise their opinion, when we turn to the assertions and admissions which our modern scientific philosophers make with regard to science in its bearings on human life.

To some of these we have made brief allusion already—especially to certain admissions on the part of Professor Haeckel and Spencer; and we will now betake ourselves again to these two most distinguished thinkers, as the best representatives available of the purely scientific spirit, which, push-

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ing the beliefs of theism altogether on one side, endeavors to construct a doctrine of life without them. Apart from their other qualifications, they are specially suitable for our purpose, because in both of them sentiment is reduced to a minimum, and nothing that is capable of degenerating or expanding into mysticism is admitted into the system of either except under severe compulsion. Both alike claim, in dealing with practical life, that "the new ethical monism" — the substitute for theistic religion — rests altogether, as Professor Haeckel puts it, "on the solid ground of purely social instinct," and is "essentially the same in man and all other gregarious animals."

The almost puritanical severity of this bald, non-mystical naturalism adds to the interest of the fact which will now claim our attention. In spite of their doctrine that the ethical conduct of man is essentially identical with the instinct of other gregarious animals, and has nothing to do with any special beliefs on man's part, both thinkers are compelled to supplement this doctrine with another of a totally different, and, indeed, of an opposite, character. Thus Spencer, while insisting in his Data of Ethics that altruism is the active agent of all ethical progress, asserts that egoism must provide it with the material on which it works: that the result of the interaction of the ego with the other members of its society will depend on the primary claims which each ego makes for itself: and that the nature of these claims will, in

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their turn, depend on the beliefs entertained by the ego as to its own place in the universe. Professor Haeckel is constrained to enunciate precisely the same conclusion: and, taken in connection with the fact that our own present analysis deals only with man's life in proportion as it becomes civilized, the language in which the conclusion is stated by him is here specially pertinent. "In the case," he says, "of civilized men, all ethics, theoretical and practical, is connected with their view of the world at large." In other words, though the primary elements of morality depend on the relations existing between each man and his fellows, its upward course depends on the conceptions formed by us of the relations existing between each man and the universe.

Nor is this all; for both Professor Haeckel and Spencer unite in claiming for such a conception the name and qualities of a religion. In it, says Professor Haeckel, are blended our "emotional cravings" for "the Good" with "our reasonable cravings" for "the True"; and "love, which for thousands of years has been the chief source of the uplifting of men," is seen, he says, in the light of this conception, to lead us up to "the ideal Good at its highest." So, too, says Spencer, it is only through this conception of our relation to the universal Cause of which all Nature is a manifestation, that we raise ourselves above the level of the immediate, the contingent, and the transitory. "It is not for nothing," he says, that this

Cause has implanted in us "sympathies with some principles and a repugnance to others"; and "the wise man" who studies its manifestations, and "fearlessly utters" what he learns about them, though every existing creed should by this means be discredited, may be confident that "he is playing his right part in the world."

It is, then, only by the introduction of ideal conceptions of the universe that these two most prosaic of non - theistic philosophers are able to present us with a picture of civilized life as higher than that of the savage, which they take as the human zero. Now, thus far their position is the same as our own; but when we come to inquire what the conceptions of the universe are, by means of which our lives are to be brought into conscious connection with it, and uplifted, idealized, and enlarged, in the manner just described, what sort of conceptions do we find?

Both philosophers with regard to this point are unanimous. The conception of the universe, or Nature, says Spencer, to which science leads us—and which is, he adds, the only conception of it which is truly and purely religious—is the conception of it as a manifestation of a Cause about which we can affirm nothing. Nothing is so irreligious, besides being so unscientific, as to call it either conscious or personal. All we can say of it is that it is an "utterly inscrutable mystery." Professor Haeckel, with more detail, enunciates the same doctrine. His way of putting the case

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comes practically to this. Let us ascribe to Nature any qualities we please, provided only that they be interesting and morally intelligible to ourselves; and science informs us that our ascription to it of any qualities such as these is nothing more than "an anthropistic illusion." In especial, says Professor Haeckel, the common idea that Nature represents any love for ourselves, or even any consciousness of our existence, is the arch-allusion which must be extirpated first and foremost. How, then, is a conception of our relation to this aggregate of uncompromising negations to have any of those elevating and highly delightful results which Professor Haeckel and Spencer, with such charming confidence, expect from it?

Let us consider Professor Haeckel's attempt at answering this question first. Civilized life is distinguished, according to him, from savagery, because it is made up of ideals, and in varying degrees realizes them; and the two most important ideals are those of Love and Truth. Truth, which means the scientific truths of Nature, and the teaching of which to the young is to supplant all other forms of education, is to fill us with "awe by exhibiting to us the working of energy." and with "reverence by exhibiting to us the universality of law." Ideal Love, when realized, is a union which transcends the senses, and consists in a "spiritual relation" between the lovers, and "a constant intimate intercourse," which, as we have seen already, is to have the effect of "uplifting"

them. But since intercourse is uplifting only when it deals with uplifting subjects, and since the main subject which is to be the bond of uplifting union between the lovers is none other than the Nature which has produced, and which enfolds, both of them, the loves of the lovers in their bower, and the enthusiasm of the scholar in his class-room, are really both dependent on the conception of Truth in Nature.

When, however, we recollect how, according to Professor Haeckel, we need but think in succession of all the interesting qualities imaginable by us, to be perfectly certain that Nature possesses none of them, we naturally ask how the most credulous school-boys of the future, or the most sentimental lovers, are to find themselves uplifted by contemplating it in the light of this supreme doctrine. Will Romeo and Juliet, when making eyes at the stars together, find their passion improved by reading in them this curt statement, "You can think, but Nature has no thoughts at all"; or, when they see in the sunset merely the official notice, "You care for each other, but Nature cares nothing about either of you"; or, when rising like Augustine and Monica, "still higher by inward musing," they see the notice everywhere, "Nature cares nothing about anything"? Lovers who, under these conditions, could find Nature "uplifting," would be nothing so much as a couple of sentimental school-girls ogling a bricked-up window and trying to believe that it was the draw-

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ing-master. And the school-boys of the future, who are to be educated by the methods of enlightened science, how are they likely to be better off than the lovers, when the one aim of their education is to lead them to the same conclusion? If there is no God, conscious of and morally responsive to men or boys—if to suppose that there is is merely an anthropistic illusion—there is an end of the matter. Why should the young be put to so much trouble in learning a platitude which could be explained in a moment, and on which no philosopher could improve? We may well ask why, and Professor Haeckel can give no answer. The moment we cross-examine him as to the contents of his religion he is dumb. And so are all those who attempt to reason like him. Their substitutes for theism are nonsense, or else they are theism in disguise. Their doctrine, as stated by themselves, merely amounts to this: that life would be low, "uncivilized," and deserving of nothing but contempt if it were not uplifted by an ideal contemplation of Nature; and when we ask what this contemplation consists of, we find that it consists of spending half our time at a telescope, merely in order to assure ourselves that there is no man in the moon.

Let us now turn to Spencer and see if he manages better. In two ways he no doubt does. He is, in the first place, less voluble than Professor Haeckel, and does not, therefore, exhibit quite so plainly the inconsistency of his practical conclu-

sions with his theoretical premises; and in the second place he gains some advantage by representing the unknowable First Cause under the positive aspect of a mystery rather than as a mere negation. For, no doubt when we are in certain moods, the thought of a mystery enveloping us, which is as vast as it is impenetrable, does tend to excite in us some quasi-religious feeling. It is, however, a feeling with no definite content, and vanishes the moment we attempt to associate it with practical life, as Spencer himself shows in a passage already alluded to. "The wise man," he says, is justified "in proclaiming his beliefs, no matter what immediate harm may come of it," because "it is not for nothing that they have been produced in him" by the "inscrutable" and "unknown" First Cause. This can only mean, if it means anything, that the unknown First Cause has, with a definite purpose, produced the beliefs of the wise man, but not those of men in general: and has also produced the impulse to proclaim beliefs which are unpopular, but has not produced the impulse, no less common, to conceal them. If these things can be known about it, the First Cause is not unknowable. If they cannot be known, the First Cause is morally useless; and that its character cannot be known or even guessed at in any sense whatever, is Spencer's theoretical doctrine from his first volume to his last. It is by this doctrine alone that his position can be seriously tested; and while his failure to exhibit

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a non-theistic universe as an object of religious emotion is no less complete than Professor Haeckel's is, it is even more instructive, in proportion as his thought is deeper.

There is in man, says Spencer, a natural religious impulse, which different religions have provided with different objects. All these objects have possessed the nature of Deities; and the different Deities have been invested with widely different characters. But in addition to the characteristics in respect of which they differ, they have all been invested with others, which are in their essence identical. These others are of a highly abstract kind, such as infinity, absoluteness, selfexistence, and so forth, which elude our powers of thought in proportion as we try to grasp them; and these, which all the higher religions agree in ascribing to their object, must, he says, be the true Object to which the religious emotion points. In other words, the Object of religious emotion has for its distinguishing and essential characteristic this-that the mind of man, while compelled to acknowledge its existence, is incapable of forming reasonably any further proposition with regard to it.

The fundamental fallacy in this whole argument is as follows. The object of any civilized religion must, no doubt, be unknowable and inscrutable, in the sense that it is, as a whole, inexhaustible by the human intellect, which merely means that, as a whole, it must be inconceivably greater than

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man. But, though it cannot be an Object of religion for us unless it is unknowable as a whole, so also-and this is what Spencer overlooks-it can as little be an Object of religion for us unless it is held to be knowable in part. A child learning its alphabet would have small respect for its teacher if it thought that the teacher knew nothing but A, B, C; but a so-called teacher who was unable to teach it anything would not be looked on by the child as an object of respect at all. With the Object of religion the case is just the same. Religion does not, as Spencer says it does -thus going wrong at the very threshold of his philosophy — dwell in the thought of an Object about which we can know nothing, any more than in the thought of an Object about which we can know all. It dwells in the thought of an Object about which we can know something. The unknowable elements in the Object are merely a row of ciphers which indefinitely multiply the value of a known number preceding them, but which, without such a number preceding them, would have no meaning whatever.

How a truth so plain as this could have escaped such a mind as Spencer's is a question which naturally suggests itself; and the answer is not hard to find. His error is due to three powerful causes. One is the fact that science, as at present understood, can find no trace of any knowable God in the universe; and he therefore feels himself bound to deny that such a God exists. A

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second is the fact that he recognizes in the religious emotion of which such a God has been always the Object hitherto an indispensable factor in the mental civilization of man. A third is the fact that, though the belief in this God is rejected, the emotion of which He was once the imagined Object, persists. Conscious, then, of the emotion himself, recognizing that it is not idle—for he sees the effects which it has hitherto had on life—and vet debarred by his science from assigning to it any intelligible meaning, he manages to persuade himself that no such meaning is necessary. in doing this he is doing nothing peculiar. is merely illustrating that quality in human nature which enables a man to retain, and even to cherish, an illicit desire or grudge of which he thinks that he has completely rid himself. The meaning of which Spencer fancies that he has defecated the religious emotion by pasting the word "inscrutable" over its only intelligible object, he really retains in his consciousness all the time. He has only sunk it below the level of language. He has forced it, instead of speaking, merely to hum or mumble; and assured by these comforting noises that it still remains alive, he leaps to the conclusion that it still remains efficacious. He totally misses the significance of what he has really done; and all his non-theistic allies are in the same position as himself. No one ever lived who knew better than Spencer the importance of the step taken in human progress when first the anthropoid animal acquired

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the gift of speech. It was not till man could talk that man became really man. Spencer and his school, so far as religion is concerned, are simply depriving man of everything that speech gave him. The religious emotion which they take to be independent of theism is merely theism reduced to its subrational stage; and Spencer's religion of the Inscrutable, as an agent in elevating life, bears the same relation to religion as articulate theism gives it to us, that the subhuman creature who could not talk bears to the man who can. In short, if we wish to show the logical necessity of theism for any development of life that can be called mentally civilized, we need merely examine the logical failures of those who attempt to give us the elements of such a civilization without it.

If, however, the reader is not convinced already that the current substitutes for theism, as a practical factor in civilization, are utterly worthless for the purpose to which it is proposed to apply them, we can turn to further evidence of a kind more direct still. We can turn to certain direct admissions, full of psychological suggestion, on the part of scientific thinkers themselves.

Of such admissions, a highly interesting example is to be found in Darwin's statement that "his power of enjoying music diminished gradually as he acquired more and more the faculty of exact research and analytical study." Here is a fact quite as worthy of note as any illuminating experiment performed in a chemical laboratory; and

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its importance is enhanced by an admission of the same kind on the part of another thinker belonging to Darwin's school.

The thinker in question is Herbert Spencer himself, who confesses broadly in his posthumous Autobiography that the higher pleasures of Life all tend to disappear in proportion as we become conscious of their scientific analysis. And to these admissions we are able to add another, which is vet more instructive and precise. This also is to be found in the same work, and is contained in the passage with which the Autobiography ends. Spencer began, as his life drew to a close, to feel a kindness, wanting to him in his earlier years, towards those religions whose Object is a Personal Deity, and on which the work of his life had been practically one long attack. And the reason of this change of feeling was, he says, that he became conscious of a "need," which his own religion of the inscrutable was insufficient to satisfy, and at the satisfaction of which the theistic religions aimed. This admission is striking enough as it stands, but he gives it, in the passage that follows, a meaning vet more pointed. Of all the saddening reflections which the approach of death suggested to him, the most saddening, he says, was the reflection that there might, at the back of the universe, be no consciousness at all, but merely a species of groping protoplasmic mind, which breaks into transitory consciousness in feeble units like ourselves. What is this but an admission on the part of that very

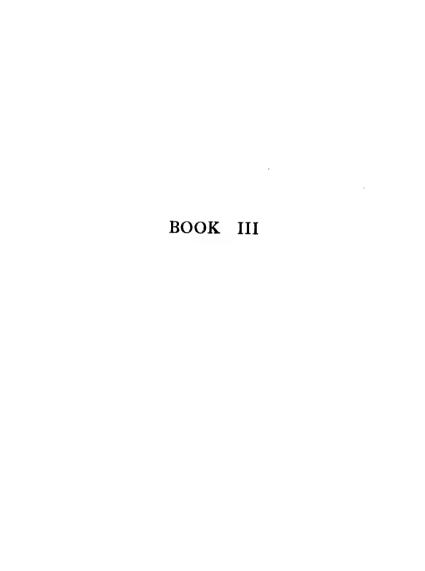
thinker who has been foremost in representing belief in any knowable God as superfluous, that belief in a God of this precise kind is the fundamental thing that man requires for his nutriment, and that its place can never be taken by any blind recognition of a Power which science must always leave a featureless and inscrutable mystery?

Whether, then, the religion of theism be true, or whether it be absolutely false, we have seen by an analysis of its practical effects on life, and also by the failures and admissions of those thinkers who reject it, that civilized human life loses all meaning without it, and that no suggestible substitute is able to take its place. So far, then, as the present portion of our argument is concerned, we may sum up the situation thus. If we take man as a thinking and feeling animal, of whose nature and conduct science, as at present interpreted can physically and philosophically offer us a complete explanation, and then watch him as his civilization develops, we shall see that a something emerges, alike in his will and in his feelings, which logically implies, with regard to his developed nature, propositions wholly inconsistent with the scientific account of his origin; and these, when their content is analyzed, inevitably result in a religion having for its object a conscious and responsive Deity, and a free personality on man's side for its subject, capable of some reasonable communion with the supreme principle which is its source.

Thus, in so far as we attribute any objective

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validity to that general judgment of all civilized humanity, which pronounces civilization to be incontestably superior to savagery, and will not for a moment allow itself to be called in question, we are attributing to religious belief a validity of the same kind, and are thus invoking civilization in its corporate capacity as a world witness against science, as at present understood and interpreted. Science, however, still remains where it was. For anything we have seen thus far its negations are as obstinate as ever. We cannot, as Spencer says, call its conclusions in question without calling in question all definite knowledge likewise; and if we can only qualify the definite negations of science by pitting against them the affirmations implicit in civilization, we are still confronted by the old intellectual deadlock. We have now to inquire whether there does not exist some means, less hopeless than the frontal attacks of the clerical critics on the one hand, and the philosophical idealists on the other, by which, accepting science in all its present integrity, we may gradually deprive its opposition of all practical import.



CURRENT SCIENCE RECRITICISED BY MEANS OF ITS OWN PRINCIPLES

OF the two direct methods of attacking or criticising science on which modern apologists of religion have thus far mainly relied, one aims—this was shown in our opening chapters—at contesting the details of the scientific scheme; while the other, accepting it as complete within its own limits, aims at showing that, however complete, it has very little significance. How utterly both these methods fail to attain their object, we have seen already, and I only refer to them now for the sake of contrasting them with the method which we will here follow instead of them. Unlike them, this method begins, not with seeking, wherever such a course seems possible, to question the truth or importance of what science claims to have proved, but with accepting from it all its doctrines at its own full valuation of them, with recognizing its facts, with indorsing and emphasizing its principles, and forcing science itself to adhere rigorously to both.

In this method there is nothing radically new. Just as science, in Spencer's words, is "common

knowledge developed," so is this method a common method developed by being applied with an accuracy and system in which hitherto it has been largely wanting. Its nature, and the class of results likely to attend its use, may be illustrated by a particular application of it which has often been made already, and to which the reader has been referred in one of our earlier chapters.

This consists of a criticism of the cruder forms of materialism, which, by accepting and rigidly insisting on the principles of that materialism itself, does not, indeed, refute it in the sense of showing that it is wholly false, but compels it to break its shell and expand into something different, as the contents of an egg do when they give birth to a chicken. The argument involved is this. The materialist's distinctive doctrine is that mind is the product of matter; and many materialists have flattered themselves that they were destroying religion at its roots by degrading mind to the level of an origin that was not mental. Their position has been attacked in a great variety of ways, the object of all of which was to discredit the bare idea that a thing like matter could develop into a thing like mind. But the desired conclusion can be reached in a way much simpler by accepting the idea as sound instead of trying to discredit it, and then by rigorously applying to it the principles of the materialists themselves, force it to unfold implications which the materialists do not suspect. For the qualities of the mind, as conscious experience gives

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them to us, remain what they always were, be their origin what it may; and in proportion as it is rigorously maintained that nothing exists in mind —no feeling, no process of reason, no hope, no vital energy—the entire constituents of which did not pre-exist in matter, it must follow that matter itself contains all the qualities of mind. It is true that, by such an argument, we reach neither of those special conclusions—that the individual mind is immortal and is a free agent — which theism desires to vindicate; but we entirely destroy the argument on which materialism, as such, relies, and to which most apologists still confine their attention. We do not refute the doctrine that mind originates in matter, but we simply enlarge our conception of what the thing called matter is; and thus by a use of the materialist's own data, we force materialism to destroy, or rather to transcend, itself.

The above argument, which has been forcibly urged by Spencer, would, if it stood alone, certainly be barren enough. It would give us the universe as mind in some sense or other, and what we call matter as a mere sign of its processes; but of the character of the cosmic mind—of mind, to quote Spencer's words, as conditioned otherwise than in ourselves—it would tell us nothing. It will, however, give the reader some rough idea of a method which we will presently begin to apply in a more detailed and penetrating way. But before doing this, let us review our present position, in order to

get some tolerably clear idea of the more immediate results at which we must elect to aim.

We have, then, three fundamental beliefs—the beliefs in God, freedom, and immortality—to which science, as at present understood, opposes a blank negation; and what here concerns us is the means by which this opposition may be annulled. Now these beliefs, as we have seen, are so closely connected that no one of them, without the others, would be of much practical use to us. But when they are considered not as beliefs to be acted on, but as standing for speculative propositions the truth of which requires to be established, the belief in God has, for one reason at all events, a claim to be dealt with apart from the two others, and before them. This reason is that God stands for a purpose in the universe, which is in some measure intelligible to ourselves, which we recognize as supremely good, and in which, by imagination at least, we are capable ourselves of sharing like momentary spectators of a festival to which we were not invited; and if we can establish the fact that such a purpose exists, we shall not merely have vindicated the particular belief in question, but we shall also have established a presumption, which else would be wholly wanting, in favor of the two others. For, although, if the universe as a whole is supposed to have no purpose of a kind presentable in terms of our own thoughts and feelings, it might be hard even to state a case for our own freedom and immortality in the face of a science which seems to

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deny both, yet if once it can be shown that a purpose of the kind in question pervades the universe, and is the principle to which we owe our own existence, the situation in this respect greatly changes its character. The assumption that our lives cannot be morally meaningless—that they must have some moral connection with the larger life around them—an assumption otherwise arbitrary—acquires the strongest likelihood; and if the counter-demonstrations of science can, even if not refuted formally, be made to lose something of their seemingly overwhelming authority, the likelihood of the assumption may be practically sufficient to overbear them.

In re-examining science, then, as at present understood and interpreted, we will begin with confining our attention to its negation of the belief in God, or, in other words, to its contention that the universe, taken as a whole, gives us no grounds for believing, and indeed forbids us to believe, that there is at the back of it any thought, feeling, or purpose, congruous with our own consciousness, and capable of being expressed in terms of it.

We shall find that the arguments on which this negation rests only require to be completed, and they will react on themselves, presenting us with a conclusion diametrically opposed to that in which, by such thinkers as Darwin, Huxley, Spencer, and Professor Haeckel, they have hitherto been supposed to issue.

ALL THAT IS, IMPLICIT IN ALL THAT WAS

Remembering, then, that when we here speak of science, we mean science as generally understood by its exponents at the present day, and as thus claiming all knowable things for its province, let us start with reflecting on a very familiar principle which it necessarily assumes as its basis, and which it verifies as a last conclusion. I refer to the principle that the laws of Nature are uniform, or that the same causes have always the same effects. Science is primarily, as Spencer says, "prevision"; but the certainty of its methods being attested by its fulfilled predictions, it turns from the future to the past, and argues from effects to causes, with a confidence equal to that with which it argues from causes to effects.

Of this certainty of science, whether looking before or after, the most striking illustrations are those afforded us by astronomy, partly because of the magnitude of the phenomena involved, but mainly because they happen to be exceptionally susceptible of isolation. In contrast to the phenomena of astronomy stand those of the weather.

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These cannot be isolated at all; they can only be observed in part: and, consequently, while we are able from the position of the stars to-night to tell the position which they occupied in the days of Pharaoh, we are unable to tell from the state of the weather on Monday what it was on the Tuesday previous, or what it will be on the Sunday following. Hence, most people, till very lately and their opinion is not yet extinct—looked on the weather as somehow an affair of chance, though they recognized the movements of the quicksilver by which its changes were registered as belonging to the domain of rigid natural law. But no one of education now any longer doubts that the showers or fog of to-day are merely an incident in a process which has been going on continuously ever since weather began, and will go on continuously till weather of all kinds ends. And the same thing holds good of all phenomena whatsoever. A definite past and future is inexorably involved in each of them, just as they are in the phenomena of the heavenly bodies; and if only our intelligence were such that we were able to grasp in its entirety the physical condition of the universe at any given moment, we could read in that moment the whole of its past and future. It is, indeed, by an approximation to this impossible feat that the whole modern system of evolutionary science has been elaborated. We have learned and verified in numberless different ways the fact that the tendency of causes is to produce a multiplication of effects; and

conversely that the explanation of effects is to be sought for in a diminution of causes. In this way the complexities of the universe as it now is, and more particularly those of the earth and the solar system, are traced back step by step to simpler and ever simpler antecedents, till we reach at last a diffused vapor or nebula, which Spencer takes as his starting-point, and with which we may here end.

Everything that is, then, implies everything that has gone before, just as the position of the wheels of a clock now imply their position an hour or twelve hours ago. Their present position is what it is, and is not anything else. Their past position was something equally definite, and could not by any possibility have been anything else either. Let us take an illustration of a slightly more complicated kind. Let us suppose that a number of billiard-balls have been all set in motion by the single stroke of a cue, and continue, we will say, for a minute forming themselves into different figures. From any one change in their grouping taking place in any one second, a spectator possessed of complete knowledge of the circumstances, including of course the condition of the bed of the billiard-table and the cushions, would be able to infer their position at any one of the seconds preceding it, till he reached their original collocation, and the strength of the blow that started them. To deny this is, in Huxley's words, "to deny science." It is more. It is to deny the possibility of any trustworthy inference whatsoever. It is to assert

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that, though three and three generally make up six, occasions constantly occur when three and three make up twenty.

To this argument, however, it may very possibly be objected that though three and three must always make up six, yet six need not always be made up of three and three. It may be made up of one and five, or it may be made up of two and four. Now of an abstract six, this is no doubt perfectly true; but if we consider the assumption which was just now emphatically made—namely, that all the circumstances at any given moment were knownit is absolutely false of any six in the concrete. We are dealing here not with abstractions, but with facts; and we may compare the facts of any particular case to a given number of counters each marked with a numeral and lying together on a tray. We will suppose, then, that there are eighteen counters, bearing the numbers from one to nine in duplicate, and that a girl and a boy have these eighteen counters before them. The girl takes up two. which together give the number six, and challenges the boy to tell her what the two counters are. is, as we have seen, just as possible, theoretically, that they are a one and a five, or else a two and a four, as it is that they are two threes; but the boy has only to examine the counters which are lying on the tray still, and if he finds that both the ones, both the twos, and both the fives are among them, he will know that the girl's six must be made up of the two threes, and could not possibly be made up

of anything else. The boy and the counters he is dealing with merely represent science as acquiring in any given case, a sufficient knowledge of the facts, and the necessary character of the facts corresponding to its inevitable inferences.

And now from counters, clocks, and moving billiard-balls, let us turn to the phenomenon which really concerns us here. This is the human organism, or at all events the essential parts of it, which collectively are for science identical with the entire man, in the sense that every fact of thought, feeling, and consciousness is another side or aspect of the action of these essential parts, just as words being read out from a telegraphic tape are another side or aspect of the same words printed.

We will, then, take the organism—or, for our present purpose, it will be sufficient to say the brain—of some highly civilized man at some particular moment. Let us take the brain of Augustine when he was writing the famous sentence, "Thou hast made us for thyself, and we are restless until we find rest in thee." Such a brain, according to science, were we able to observe its secrets, would exhibit in the layers of the cortex—in the pyramidal layer especially—a cellular or molecular patterning of a kind so distinct and peculiar that the ejaculation of the saint could be read in it by the ideal scientific spectator, as surely as an Egyptian inscription is read by an instructed scholar.

Such being the case, then, the particular brain selected by us may be compared at the moment

in question to a figure formed by our billiardballs; and, like the billiard-balls, its figure at the moment in question must have been preceded by another no less definite, that other by a third, and so on in an endless series. Let us now translate this fact into another pictorial symbol of a rather more elaborate, but still of a simple, kind. Let us represent the selected brain at any selected moment as a small circular mosaic, tessellated into some inscription, and placed at the top of a long, porous tube, like a wad at the top of a gun-barrel; and directly underneath this let us suppose that there is another mosaic, representing the brain as it was at the moment previous, and others again under this, each of which represents similarly the molecular pattern that was necessary to produce its successor. The contents of our tube, then, will thus be a piece of the universe, isolated like a portion of some infinitely large cheese, into which has been thrust an infinitely long cheese-taster; and this portion will consist of a countless series of sections, any one of which we will suppose that we could take out and examine.

Now we shall, if we go backward in the scale of time, have only to take out a few sections as specimens, in order to see that, as they follow each other, they gradually change their character. When, let us say, we have gone back fifty years, we shall find that they are sections no longer of the brain with which we set out. They will be circles of embryonic matter, and the matter of some

maternal uterus; and if we assume, as for simplicity's sake we will do, that the human being has only one line of ancestors, we shall presently come to sections representing, in unbroken sequence, the brains of the mother and all her human progenitors, then the brains of a series of lower animals, then a globule of protoplasm, then an arrangement of certain inorganic carbonates, and finally (for we will end here), a little portion of the so-called primal nebula. But with regard to each section of mosaic we must bear in mind this—that while those at the top, representing human brains, will be tessellated into intelligible words such as those just quoted from Augustine, and while as we descend through the animals to protoplasm and inorganic substances, the tesseræ will form patterns which for us are wholly meaningless, yet the patterning in every case is equally specific and inevitable, implying the pattern above it, implied in that below; so that any one possessing complete scientific knowledge could, by examining one of them, reconstruct the entire series.1

Our pictorial symbol as it stands, however, is too crude for our present purposes. It represents the antecedents of the brain with which we are dealing as though they constituted a process shut up in itself. But they do not. We shall find that,

¹Huxley, in order to illustrate a somewhat different point, compared the antecedents of a single life to the sucker of a strawberry plant, whose existence reached back to the beginning of organic evolution.

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in reality, the tesseræ of our successive mosaics not only differ from one another because their tesseræ change their places, but because the tesseræ themselves are constantly changing also, some escaping through the porous sides of our tube, others entering in and taking their places from without. We must, therefore, if we would make our present symbol complete, suppose that our small tube of sections stands in another which is enormous, and which contains in sections corresponding to them the entire substance of the universe at different seconds of time. It need hardly be said that what holds good of the small sections will hold good of the larger also; that the mosaic pattern of the universe, as each larger section exhibits it, will imply preceding patterns of a kind equally definite; and that the patterns of the little sections — the antecedents of a single brain — are merely parts of the pattern of the larger sections surrounding them. We may, therefore, dispense with our small tube as a superfluity; and instead of it, we will suppose that, for the purpose of identifying its contents, we enclose them on each large section in a circle of red ink. Thus, in considering the antecedents of whatever brain may be in question, we must no longer suppose ourselves to be looking for them in the small sections taken by themselves. We must suppose ourselves to be looking for them in the large sections, on which we shall find them marked like a town on a large map.

And now let us take any one of these larger sections we please, and consider for a moment what its details will teach us. The section is covered with a specific patterning, of which part is inside our red circle and the rest outside it. We have seen that this patterning, as a whole, is the absolutely necessary result of the patterning that went before it, and the absolutely necessary implication of the patterning that will come after it; so that any two of these might be arrived at by a study of the third. We have now to reflect on the fact that within each section itself there is the same connection between the various parts of its patterning that there is between its patterning as a whole and the patternings which precede and follow it. That is to say, any one whose scientific knowledge was complete could, by a study of the patterning inside the red circle, know the whole of the patterning outside; and conversely, by a study of the patterning outside, might know the patterning inside with the same absolute certainty. This last is the fact that most concerns us here; so it will be necessary to present it to the reader with as much precision as possible.

The whole of the patterning, inside the red circle and outside, is, we have been supposing, made up of a number of tesseræ, which are being constantly shuffled about and rearranged on a plane surface. Let us now make a few suppositions more—firstly, that the tesseræ are each of them marked with a letter, the patternings thus consisting of the ways

in which the letters are arranged; secondly, so as to make our conception more easily manageable, that our patterned section is a section of the solar system only, and that our tesseræ are twenty-six in number, each marked with one letter of the alphabet: thirdly, that wherever the letters are so grouped that no contiguous letters make up an intelligible word, we have no brain or any of the phenomena of consciousness, and that brain and consciousness only come into existence where the letters are juxtaposed so that an intelligible word results from them; and finally, let us suppose that the section with which we are dealing is a section of the solar system in which the sole conscious portion is the brain of Augustine when he was writing his sentence about God, this portion being that which is enclosed within our colored circle.

The fact which I desire to impress on the reader's attention is that, if the contents of the colored circle were entirely covered over with a wafer, an ideal scientific observer could infallibly tell what they were by merely examining the letters outside the circumference.

To explain in detail how such a conclusion would be reached by him would of course be impossible with the aid of the rough symbols we are using. It is enough to point out that to reach it is theoretically practicable. Let us suppose that the circle which contains Augustine's brain is filled up with the letters G, O, D, and that these represent his consciousness at the special moment in question.

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These letters are covered, and our observer cannot see them; but on carefully going over the others which remain open to his inspection, he finds that a G, an O, and a D, are missing. They are not outside the circle; they must therefore be inside it. And if it be objected that, though so much might be known in this way, it would yet remain uncertain whether the three letters in question were not arranged in the order D, O, G, instead of the order G, O, D (as they might have been in the brain of the sporting prelate Synesius), the answer is hardly less simple. We are assuming that our observer is a man whose direct knowledge with regard to all the tesseræ, except those within the circle, is complete; and such knowledge will include, not only a knowledge of how the tesseræ are arranged in the present section, but also a knowledge of their arrangement in the section immediately preceding it. Such being the case, he will have noted that in the preceding section the three tesseræ bearing the letters D, G, O, lying, as they necessarily must have been, just outside the circle, were so placed that any further movement of the whole could, if it pushed them inside the circle at all, only have pushed them in in the order G, O, D; and thus the inference as to the contents of the circle is complete. We read what is inside it by a study of what is outside, just certainly as an astronomer, in the movements of seen planets, reads the existence and position of a planet that has been seen by nobody.

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And now let us put together the conclusions which by this time we have arrived at. They may be expressed thus. Let us take two patterned sections of the matter of the solar system. The first shall be the section which we have been just considering. In this we have the solar system itself, with the brain of Augustine contained in our red circle, as a part of it. The second shall be a section, not of the solar system at all, but of the drifting nebula out of which it was ultimately evolved: and the contents of the red circle similarly will be a section, not of a brain, but of something not specifically different from the patterned surface external to it. With regard, then, to these sections, the conclusions we have arrived at are as follows:

Firstly, each, taken as a whole, implies, and is implied by, the other. The patterning in section number 1, representing the solar system, implies the exact patterning in section number 2, representing the primal nebula, and is in its turn implied by it, as the butterfly implies the caterpillar, and as the caterpillar implies the butterfly. For our present purpose, each is the precise equivalent of the other.

Secondly, the same thing is true of the patternings within the two red circles. The patterning of the brain of Augustine, in section number 1, implies the patterning of the little disk of the substance of the primal nebula contained in the red circle in section number 2.

Thirdly, in each section, the patterning outside the red circle is the necessary, the exact, though the indirect, equivalent of the patterning inside.

And now we may simplify these conclusions further. Of section number 1, we need keep the part only which represents the brain of Augustine, when he wrote the words, "We are restless until we find rest in Thee." And this, too, we need keep for no more than a moment till we have again noted the fact that it has its precise equivalent in the patterning inside the red circle on the section of the primal nebula. The latter, then, we may take in place of the former; and we may say that by anticipation and implication it is the brain of Augustine itself. And here we reach at last the final conclusion aimed at. Just as this disk of nebula inside the red circle is the equivalent of the brain of Augustine, so is the rest of the nebula the equivalent of this disk. It is equivalent to it in the following sense, that, in order to render the patterning of this disk possible, the entire patterning external to it had to be what it was, and could not have been anything else in any single particular. Just as, according to Clifford, in any single cubic inch of matter, scientific omniscience would discern all the rest of the universe, so is one special condition of all the rest of the universe essential to the given condition of any single cubic inch.

The consequences of this fact will engage our attention presently; but since many people, when once it is plainly stated, may be tempted to look

on the statement of it as little more than a truism, let me explain, before we go further, why I have dealt with it at such tedious length. I have dealt with it at such length because, whether it is a truism or no, it is a truth which is utterly lost sight of in modern scientific speculation, or, it would be truer to say, is elaborately hidden from observation. If any one doubts this, he need merely consider the formula in which the whole evolutionary theory of modern science has been condensed by the only scientific philosopher belonging to our own country, whose fame is international, and who speaks in all civilized languages. "Evolution," says Herbert Spencer, "is a passage of matter from an indefinite, incoherent, homogeneity to a definite, coherent, heterogeneity"; and the classical example which he gives us of this process is evolution of ourselves and the solar system from the nebula we have been just considering.

To this formula many objections have been made — most of them ridiculous, others perhaps sound; but they have none of them been directed against its fundamental and most remarkable deficiency, which is that it represents matter in its nebular state, from which evolution starts, as indefinite, or arranged in no necessary and specific pattern; and as homogeneous, or alike all through. Spencer's language not only fails to describe, but it positively obscures and obliterates, the fact which in the present chapter it has been our main object to elucidate—the fact, namely, that the constitu-

tion of the nebula at any given moment must have been just as specific, and just as delicately differentiated, as any of the phenomena into which its elements subsequently transfigured themselves. If we want an explanation of the universe that shall be an explanation in any true sense, it is in this fact, or it is through this fact, that we must look for it. It is a fact which must evidently represent the causes and foundations of the cosmos; and Spencer's formula, and the practice of current science generally, covers the whole of these over with a great, brown holland sheet.

I do not deny that, so far as the present point is concerned, Spencer's terminology was sufficient for his own purposes; but this merely shows how limited and how incomplete are the views which science has thus far taken of the phenomena with which it deals.

In the following chapter we will pursue the subject further.

TIT

MOLECULAR PREARRANGEMENTS, INDEFINITE HOMOGENEITIES. AND CHANCE

If all the molecular tesseræ external to that part of the nebula which contains what is, as we have seen, the brain of Augustine in anticipation require to be arranged or patterned in one way, and in one way only, in order to make the brain of Augustine a possibility, the question naturally arises of how this arrangement came about; and the more closely we consider it the more interesting we shall find it to be.

Let us return for a moment to our former simple supposition that the entire contents of the nebula are made up of twenty-six letters; that three of these letters, G and O and D, get shuffled inside the circle representing Augustine's brain. These three form an intelligible word, but none of the other contiguous letters do. An ordinary observer would say that these last were arranged anyhow, while the three letters G, O, D were arranged in a specific way. He would, in fact, be tempted to use the language of Spencer's formula and call the letters G, O, D, as arranged in that order, a "defi-

nite, coherent, heterogeneity," and the others an "indefinite, incoherent, homogeneity." And he might justify himself in doing so by the following verbal The letters G, O, D are definite because they, and they alone, can make up a special word, God: they are coherent because, they make it up by joining together to do so; and they are heterogeneous because, in producing this joint result, each letter plays a special and a different part. On the other hand, the remaining letters are indefinite and incoherent in their arrangement because none of them cohere so as to produce any result that is intelligible, and are homogeneous because, in spite of their various forms, they are all equally dumb, and are, so far, practically alike. The arrangement, in short, of the letters G, O, D may, in a sense, be looked on as definite and highly complex, and be contrasted, as such, with the simpler and indefinite arrangement of the others. If, however, we consider the matter further, we shall see that this seeming simplicity in the arrangement of the others is delusive.

Let us suppose that at a mine in a hollow among sloping hills the ore is crushed by the simultaneous impact of six iron balls converging towards one point, and that these, like hammer - heads fixed on pivoted handles, are made to concentrate their blows on the required spot by machinery. The machinery, we will say, is elaborate, and one day it breaks down; so the miners, in order to get on without it, pile up the ore in some piece of open

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ground, and give the iron balls to boys who are to take them up the sides of the hills, and roll them down at such moments, and from such spots, that they shall all, from different sides, strike the ore simultaneously. Now this method, in a sense, is much simpler than the elaborate machinery; but it obviously also requires incalculably nicer adjustments. The punctual meeting of the balls at the times and at the point required will depend on a thousand circumstances, every one of which has to be taken into account. Each ball will roll down a different gradient, and will in its course encounter a variety of different obstacles, such as stones and roots, which will affect it, and which must be all allowed for. Thus, though the mere act of placing the balls in the six different positions, starting from which they would meet at the point required, would in one sense be simpler than that of constructing the rudest crushing-mill, the calculations involved would be infinitely more complicated; and by inaccuracies so slight as to be inappreciable in the working of the machinery, the desired result would be rendered in this case impossible. And if such nicety of arrangement be necessary in the placing and starting of our balls, in order to secure an event so simple as their meeting at the spot required, it is easy to see how incomparably greater will be the nicety necessary in the arrangement of the tesseræ of the primal nebula, in order to produce ultimately even a single human brain.

We are all of us familiar with the pictures of

kings and queens, crowns, cascades, and buildings, which spring into light during an exhibition of fireworks, as the result of the application of a single match to a fuse. In order to produce this result complicated wooden structures, with cases of powder tied to them — different cases holding powder of different kinds — have to be prepared beforehand; and on the definiteness of these previous preparations the whole result depends. The nebula bears to the human brains that have emerged from it the same sort of relation that the wood-work and cases of powder, which, seen in the daylight, are apparently devoid of meaning, bear to the pictures of fire that are to startle the night presently.

And now we may again ask, with a fuller comprehension of the question, to what was the nebular prearrangement due? Let us first see how the question is dealt with by Spencer himself; for even he recognizes dimly that some such question exists.

His general answer is this: that wherever matter exists in a homogeneous mass—such as that of the primal nebula—it is of necessity unstable. It cannot remain homogeneous. Some of its particles in one quarter will draw nearer together; a centre of disturbance will be formed affecting all the rest, and by-and-by the whole will resolve itself into a defined pattern. He illustrates his meaning by the case of shellac varnish, a coating of which, if applied to a piece of paper, soon shows on its surface a number of polygonal divisions, developing themselves in various ways, and finally covering the

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whole. How, then, does he explain this? He explains it by the fact that the several parts of "the homogeneous aggregation" are necessarily exposed "to the operation of different forces," one, for example, being the air, which dries the surface of the varnish more quickly than the parts beneath, and this illustration is sufficient to guide us to what he really means. He means that the homogeneous substance from which evolution starts is not homogeneous—that is to say all alike—in any true sense at all, but is from the beginning differentiated by a variety of different relations borne by its several parts to other matter surrounding it. If all matter, he says, were "diffused with absolute uniformity," the homogeneous would not be unstable. It would remain "absolutely uniform"; or, in other words, nothing would take place whatsoever.

The truth is, that when he speaks of homogeneous matter, he merely means matter which is homogeneous spectacularly. He arbitrarily excludes from his conception of it matter as allied with force. For example, if two similar nails were lying between two magnets, these two nails would, according to him, be homogeneous, in the sense that the first was spectacularly a replica of the second. As a matter of fact, however, the one being nearer to one magnet, and the other being nearer to the other, and the two being thus magnetized in different degrees and ways, the two nails in their entirety would be very different things. Since, then, as a further fact, force and matter are insepar-

able, there cannot, in so far as change takes place anywhere, be any such thing as an indefinite homogeneity in existence; and Spencer, for whom evolution is a concrete fact or nothing, in endeavoring to explain a concrete fact by a shadow. Practically, indeed, he admits this much himself. He admits that all change must have started with differentiation somewhere; and he admits also what is here more important still. Taking, he says, any change we please as the hypothetical point at which "evolution commences," we must remember that this change was "necessitated" by what went before, and we must "add to this the conclusion that the changes (thus initiated) must continue." That is to say, not only is evolution initiated by some definite arrangement and movement of definitely heterogeneous matter, but in that arrangement and movement all the products of evolution were implicit - Augustine's declaration that our sole rest is in God, Spencer's declaration that God is merely a name for the inscrutable, and every word, comma and colon, in all Spencer's own writings.

Here we are brought back to our original question once more—to what were those definite arrangements of matter and force due, which contained, as it were, all these things in cipher? And to this Spencer not only attempts no answer, but he does not even recognize clearly what the nature of the question is. The question is—to put it in its most pressing form — why did cipher contain in it the word "man"? And Spencer, in effect,

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answers, "Because a pen wrote it." True, a pen wrote it; but what we want to consider is, why did the pen write "man," and not something totally different? Why did it write anything intelligible, and not a mere meaningless scrawl?

Spencer, however, though he does not attempt an answer, with any knowledge that he is doing so, does incidentally give one of a kind; and it is given by him in the doctrine which forms the foundation of his whole philosophy—his doctrine that the Power, of which the universe is a manifestation, is unknowable. By this he means, as we have had occasion to see already, that none of the phenomena of the universe give us any ground for supposing that this Power possesses any attributes conjecturable or comprehensible by ourselves. Now the first attribute of power comprehensible by ourselves is purpose. It follows, therefore, that, be the cause what it may, of that primary arrangement of matter with which evolution started, and which definitely contained in embryo everything which has been since evolved, this cause cannot have been what we ourselves mean by purpose, or design, or intelligence, or any other kindred faculty. dently, then, at the bottom of Spencer's mind, the cause was represented as Chance, in some sense of the word, and his phraseology shows constantly that such was actually the case. Matter arranged itself in the requisite way somehow. There was a blind shuffling of force-centres and molecular aggregates; and after a time the requisite arrangement

was hit upon. And here he is in agreement with all scientific philosophers who, loyal to the data of science as thus far understood, deny themselves the privilege of admitting the existence of a supreme intelligence. Many of these philosophers, for one reason or another, are not much given to facing what is really their fundamental doctrine; but Haeckel, who in all fundamentals, is absolutely at one with Spencer, boldly declares that this is the only doctrine possible. We will, therefore, take it as stated by the most famous of its living exponents, and then go on to examine it more carefully than he has done himself.

In one sense Professor Haeckel admits that Chance has no existence — that is to say in the sense of events that have no cause. "Every phenomenon has," he says, "a mechanical cause; but," he continues, "since the development of the universe is a mechanical process, in which we discover no aim or purpose whatever . . . it is not only lawful, but necessary to retain the term chance, for the purpose of expressing the simultaneous occurrence of two phenomena, which are not casually related to each other, but of which each has its own mechanical cause, independent of that of the other." The part which Chance of this kind plays in the evolution of the universe may be understood, he continues, by considering how it influences the lives of men. Thus, to take an example of our own —for he gives none himself—a powerful statesman, whose policy was ruining a nation, is killed by a

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falling brick as he walks along in the street. The nation is saved from his malign influence, and recovers itself, and all subsequent history is modified by this fact. The fall of the brick has a train of mechanical causes behind it; so has the position of the statesman's skull when struck by it; but the fact that the brick and the skull were at the same place simultaneously is not "casually related" to one set of antecedents or to the other. It is fortuitous, or a matter of chance; and yet intelligible history is made by it. The same is the case with the universe on an infinitely larger scale. Casualty provides the material; chance coincidence turns out the finished article.

Such is Professor Haeckel's doctrine. Let us illustrate it in another way, which will throw a very interesting light on it. According to him, the various phenomena of the universe, in so far as each has its own train of causes behind it, are like iets of water spurted through holes in a rock, in obedience to the pressure of the rising tide of the sea. The upward course of each jet has its own causes which determine it; but if it happens that some of the jets collide, and the water, as a result of the collision, takes new and peculiar shapes, "casual relation" disappears, and the element of Chance asserts itself. In other words, there is, according to Haeckel, no Chance in sequences; there is nothing but Chance in coincidences. Nothing is Chance vertically; everything is Chance laterally. Now this, in all essentials, is the precise doctrine

of Lucretius. According to Lucretius, the original condition of matter was that of a rain of atoms falling in parallel lines; but at some place or places some of these lines were deflected. One striking another, their atoms met and joined. An aggregation of particles took place; a rotary movement ensued; the aggregation of particles grew bigger and bigger like a snowball—

And in this mode that certain whorl began, Which turned at last to earth and heaven and man.

Professor Haeckel finds himself, therefore, in very classical company. The earliest thought and the latest thought coalesce.

Now if we ask what the significance of this doctrine of Chance is, as applied to the problem of how the process began which has issued in the orderly and intelligible world we know, the answer will be that, according to the law of chances, if particles are shuffled about for a time practically infinite, they will assume all possible positions, until somewhere the grouping is reached with which orderly evolution starts. In examining, therefore, the value of Professor Haeckel's doctrine which, apart from that of purpose, is the only doctrine possible, our first step must be to inquire what the word Chance really means. Unless we make ourselves perfectly clear as to that, to give the name of Chance to the prolific coincidences of the universe, is to do no more than baptize them with a new name.

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There are few ideas which, in a general and unanalyzed way, are more familiar to everybody than this idea of Chance; and the idea corresponds doubtless to a highly important reality. But the popular mind is under the influence of a singular delusion as to what the nature of this reality is; and Professor Haeckel and his whole school are equally under its influence also.

The nature of their error can be explained most readily by dealing with Chance as it shows itself in matters of daily life. Described briefly, it consists simply in this — in attributing to external phenomena what exists solely in ourselves. It is an error the converse of that which attributed a diurnal motion not to the earth but to the sun. Chance, as commonly conceived of, may be compared to some external object, which is shaken to and fro in a bewildering way before us; the fact being in reality that the external object is stationary, and it is we who are being shaken before it by the rhythm of our own ignorance. Chance, in short, so far as human beings are concerned, is simply human ignorance of a certain peculiar kind.

Let us take what, for most people is Chance in its classical form—namely, the falling of the ball at roulette into a red compartment or a black one. To the average player, this seems an affair of chance either because he imagines that, the ball having once been started, it may fall into a black compartment or a red compartment indifferently; or else because he imagines that the force with which

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the croupier starts it is somehow or other determined by no cause in particular. In reality, the result is as inevitable as the movement of the clock in the gambling-room, not only from the moment when the ball is first set in motion, but before it has felt the touch of the croupier's hand. Apart from the mysterious interference of freewill, which, as the reader must remember, we are here rigidly excluding, the force which the croupier exerts is a quantity exactly determined by the condition at the moment of his attention or his nervous system; and not even a gambler, if he will but pause to think, can doubt that the result is inevitable as soon as the spin is given. The element of Chance lies solely in the three facts, that the croupier is unable to calculate the force which he necessarily exerts, and that the ignorance of the players is even more complete than his, and that the latter, in placing their stakes, commit themselves to a course of action which is determined. indeed, by some cause, but by a cause which is not knowledge. If, instead of the game of roulette, we take that of trente-et-quarante, this will be clearer The croupier here has a number of packs of cards before him, elaborately shuffled together before the game begins, and the result of each coup depends wholly on the hidden order in which the cards have by this means been placed; and hence it is obvious that the winnings of red and black will follow each other as certainly as they would were they so many feet or inches marked on a

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measuring-tape which the croupier gradually unwound. The objective certainties are forewritten, and potentially visible before any special chance is thought of. The chance is not in the cards: it is in the players, and in the players only.

If this truth requires any further assertion, let us take the case of the tossing up of a coin. If a coin be tossed an indefinite number of times, the number of heads and tails that come up will be equal. So theorists say; and they add in the same breath that, however many times heads may have turned up already, the chances are still equal that heads will turn up again. But when they speak thus, they always make one assumption—that what tosses the coin is a hand. Were it tossed by an accurate machine, under circumstances always identical, the same sequence of heads and tails would always reappear in cycles; and tails, it is quite possible might always outnumber heads. What the doctrine of the theorist means, though he may not himself know it, is that when the coin is tossed by a human hand, the hand, as a fact, oscillates between two classes of movement, which the human being cannot himself control, but are rendered numerically equal by the general equilibrium of his system. Let us take one case more. Two pedestrians come on an unknown railway, and pause to bet on whether the next train that passes will be a passenger train or a goods train. For the officials of the railway this will be a matter of certainty. For the two pedestrians it will be a matter

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of pure chance. And why? Simply because they are ignorant of what the railway officials know. The doctrine of chances, then, as applied to human affairs, is a doctrine of human nature, not of any facts external to it. As applied to external facts, it has no meaning whatever.

And now let us turn to the cosmic events of nature, most of which took place before man came into existence; and let us examine the doctrine of chance, as applied by Professor Haeckel to these. Prolific coincidences are Chance, he says; mechanical sequences are not: and it was owing to chance coincidences that a cosmos sprang from chaos. Now he draws this distinction, as we have seen already, on the ground that there is between sequent events a "causal relationship," while between coincident events there is none. But we need not speculate long about the nature of Chance to see that this distinction, as it stands, cannot possibly be true; for if it were, the most surprising results would follow, as an example taken from human life will show. Between the separate gangs of workmen who built out the Forth Bridge bar by bar from opposite sides of the estuary, there was in a sense no causal relationship; but when at last the two arms of the long cantilevers met, accurately to the fraction of an inch, "the simultaneous occurrence of these two phenomena" would not have been ascribed to Chance even by Professor Haeckel himself. And why? Were he asked the question, the answer he would make is

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obvious. He would say that though the causes—namely, the separate gangs of workmen — which produced respectively the two arms of the bridge were in a superficial sense not interrelated, yet in a deeper sense they were so, being both directed by the intelligence of the same contractor. The original cause, he would say, in a case like this bifurcates; but the same necessity that makes it split into two stems at one point makes the two stems become one again at another. And his answer would be perfectly correct. But it has an application wider than he himself sees. It applies to the works of nature no less than to the works of man.

Let us return to our jets of water spurted through the holes in a rock. Each jet follows its own course in obedience partly to the shape of its own hole, partly to the general water-pressure caused by the rising tide; but the same parent pressure actuates all alike, and the holes, without which they could none of them spurt at all, determine absolutely, by their shapes, the course which each jet shall take. Each might be a train travelling along a line of rails. If, then, in pursuance of these their necessary courses, two jets collide and break into new shapes, how is the "simultaneous occurrence of these two phenomena" more a matter of Chance than the occurrence of each separately? How is it possible scientifically to draw any distinction between them?

Let us take another example. Let us suppose

that a stick of toffee, if kept in a hot cupboard, separates gradually into its two original elements, and becomes a pat of butter and a little puddle of treacle. Professor Haeckel would certainly tell us that there was no chance here. We should have a single series of strict mechanical causes. But let us suppose that we have another composite substance, which separates, being similarly placed, into phosphorus and a heap of gunpowder, that the phosphorus then takes fire, and both go off with a bang, spoiling some nice biscuits and breaking the cupboard door. Here, according to Professor Haeckel's definition, would be chance in an aggravated form. There would be three "simultaneous phenomena" having no "causal relationship." The peculiar properties of the phosphorus prior to the moment of the explosion are not causally connected with the peculiar properties of the gunpowder; and heat of the cupboard, which makes the phosphorus burn, has no causal connection with either. There was, however, as little causal connection in the other case between the heat of the cupboard and the properties of the butter and the treacle. Why, then, is there chance in the one case, and no chance in the other? The answer is obvious. In the case of the toffee no idea of chance suggested itself, because the simultaneous occurrence of the three phenomena in question did not unite in producing any marked result. There is nothing to provoke a question, so chance is not offered as an answer to it. In the other case a

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question is provoked by results of the most unexpected kind, and chance is invoked to answer it—why? For no other reason than this, that the result is unexpected. The composite substance—we have been tacitly assuming this—was put into the cupboard by a person who knew nothing of its properties. But we have only to change our assumption, and suppose that it was the intention of somebody to spoil the biscuits and to blow the cupboard up, and that the substance was placed in it with a view to this special end; and the whole idea of chance is instantly made ridiculous, and its origin is thereby disclosed. It does not depend on any absence of causal relationships. It comes into being only with an absence of human knowledge.

And if we go back to the case of the jets of water, to the mechanical causes which determine the course of each individually, and the chance, as contrasted with these, to which Haeckel would ascribe their collisions, we shall find that the idea of chance has precisely the same origin. Here, indeed, human agency has no part in the actual performance; but it is tacitly assumed that there is an ideal human spectator, who can calculate one set of phenomena—namely, the courses of the jets individually, but who cannot calculate the other—namely, the way in which the jets will collide, and the results that will follow from their collision.

And this brings us to what is really the heart of the matter. Chance in nature or the universe is essentially the same thing as chance at roulette or at trente-et-quarante. It is the emergence of a definite result to which our attention is directed, but the causes of which cannot be traced by the mind supposed to be contemplating it. It is the emergence of a result whose intelligibility, so far as we ourselves are concerned, is in excess of the intelligibility of its antecedents; and the emphasis with which chance is invoked as a means of explaining it is, for Professor Haeckel and his school, in proportion to this excess.

So far as science is concerned, or any philosophy founded on it, Chance, as attributed to the universe, cannot be described better than by applying to it the terms which Professor Haeckel applies to God. It is "an anthropistic illusion." It is the erection of a purely subjective effect which is confined to our own consciousness, into an objective cause which governs the evolution of all the worlds. The use, moreover, which is made of it by Professor Haeckel and those who agree with him, is a reintroduction by monists of the very dualism which they claim to repudiate; and which differs from the dualism of the theists in the manner of its application only. Theists are dualistic in order to make room for God. Monists lapse into dualism. in order that no room for Him may be left. other words, they invoke the doctrine of Chance merely in order to answer, without reference to any cosmic or divine purpose, the question of how an intelligible cosmos rose out of a seeming chaos. Otherwise the doctrine plays no part in their

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system, with which, as we have seen, it is altogether incompatible; and considered as an answer to the question, it is, as we have now seen also, nothing else than a formal, though veiled, confession that, on their own principles, no answer is possible.

In examining, therefore, the attitude of science with regard to the ultimate question, the doctrine of Chance may be set altogether on one side, and with it its Spencerian equivalent, the doctrine of indefinite homogeneities; and when this is done we shall see in its true light the position in which science stands with regard to the Riddle of the Universe. If this science is tested by its own principles, which we are here all along accepting, and to which alone we appeal, we shall see that it does one thing of which itself it has no adequate conception. It does not answer the riddle; but what it does do is to restate it with an amplitude and clearness of detail never attained till now. Professor Haeckel's work, for example, which purports to provide us with a solution of it, is in effect a magnifying-glass of enormous power, which helps us to see clearly what the question to be solved is, little as he himself understands what he has done so much to reveal.

The great truth which Professor Haeckel, more popularly than any other writer, exhibits as the conclusion of all science is this, that the entire universe, organic and inorganic, solid or nebulous, past, present, and future, is a single system of interconnected causes; that everything that is, is

the equivalent of all that was; and conversely, though he fails to draw this inference himself, that all that ever has been, has been the equivalent of all that is—that if the atoms had to clash for a million million years before the arrangement was reached from which modern evolution started, this special arrangement—this and no other—was implied in each prior moment of the seemingly aimless turnult.

When a delicate picture is being painted on a Sèvres plate, the colors which the artist lays on are grotesquely different from those which by-andby will tempt the eye of the purchaser. The original colors change in the process of firing; but it is on the original colors that the final colors depend. The nebular and prenebular universe were the plate in its first stages. An exposed photographic film, when first taken out of the camera, has a surface seemingly as homogeneous as Spencer's shellac varnish; but every detail is hidden in it which the developer subsequently brings to light. The universe, for science, is necessarily a film like this, the slow developer being time. Or we may call it the disk of a gramophone, lined from the very first with the words which, by means of its endless whirling, we are uttering to one another to-day. Haeckel and Spencer and their works were in the movements of the presolar flocculi, and Augustine's appeal to God was crying out of the primal flames.

We are thus brought back, armed with a clearer knowledge, to the point which we had reached at

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the close of the last chapter. We there saw that current science, when dealing with the ultimate causes of things, instead of answering, or trying to answer, the problem, throws, as was said, a cloth over all its details, and makes an answer impossible by simply hiding the question. Under the name of Chance, or an indefinite, incoherent homogeneity. it exhibits the nebular or prenebular universe as a blur; whereas in reality its condition at any moment, no matter how remote from the beginnings of the existing cosmos, must always have been as specific as that cosmos itself, and the conditions of the living creatures which have inhabited our own planet. We have now rescued the problem from the artificial obscurity in which incomplete thought and inaccurate language have involved it: and the so-called indefinite homogeneity which Spencer takes as his starting-point is revealed to us like an elaborate landscape when a mist has been blown away from it; or like a slab of marble, the surface of which, having been accepted as blank, because it has been coated with the dust of negligent ages, is seen on being cleaned, to be lined with innumerable hieroglyphics. The question really at issue now begins to assert itself. How are the hieroglyphics to be deciphered? Where is the Rosetta Stone—where is the bilingual tablet which will enable us to spell them out? This is the question to which we will now proceed.

IV

MIND AND PURPOSE IN THE CAUSE WHICH IS THE SYNTHESIS OF ALL CAUSES

It is a truism for common-sense, and it is a truism for all philosophies, scientific or other, that we know nothing except through the agency of our own minds. For all philosophies also, if not for common-sense, it is a truth that our minds are at once passive and active. Passively, they receive impressions. Actively, they weave these impressions into orderly and intelligible forms. By the metaphysical philosophers, as we saw in a previous chapter, this activity was supposed to reside in an entity which is separate from the universe, and which weaves as an alien the material which the universe gives it. For scientific philosophy, with which alone we are here concerned, the activity in question is part of the universe itself, having its seat in the thought-organs of the brain, which associate and combine the impressions prepared by the sense-organs; and each human mind is thus part of a universe which, in it, is partially reproducing its own image in miniature.

Now that such must be the case in a vague and

generalized sense, Spencer, Haeckel, and the whole scientific school admit. We being minds, and we being products of the universe, it follows that in a certain sense the universe must be mind also. But they maintain that this holds good in a general sense only. A human mind in the abstract indicates a corresponding indeterminate mind in the universe; but, as a particular mind, thinking particular thoughts, comprising particular feelings, and hoping and purposing in connection with them, it indicates nothing in the universe that similarly corresponds to these. Indeed, to suppose that it can do so, is precisely what Spencer and Haeckel ridicule under the name of anthropomorphism. It is here that the fundamental error of these thinkers They neither of them seem to suspect that this indiscriminate contempt for anthropomorphism is, just as their doctrine of Chance is, a recrudescence of dualism or a relic of it. If the thinking and feeling man is, as theologians say he is, not derived from the universe, it might be absurd to suppose that his ideas could throw any light on its character; but since, according to their own principles, he is an absolutely inseparable part of it, to suppose that its character as a whole must be indicated by his ideas in some way, is no more absurd than to suppose that we can, by the aid of the spectrum, find out something or other with regard to the character of the stars.

This error of Spencer and Haeckel is one which has two origins. It is due partly to a survival of

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the theological conception of the soul; but it is more particularly due to a failure to perceive a fact which has formed the central subject of our two preceding chapters, and which it is necessary here that we should briefly state once more. It is perfectly true that if we take some special part. such as man, which is due to a causal whole, through the action of intermediate causes, we cannot argue from the character of the part in question to the character of any of the intermediate causes separately, for they are only parts of the causal whole themselves; and if all the parts of the whole are interconnected, as in the case of the universe they must be, no part can be explicable if separated from any of the others. But we not only can, we are scientifically bound, to argue from the character of the part in question to the character of the whole, as such, in which all the intermediate causes were implicit as a perfect synthesis. hand of a painter had a separate consciousness of its own, it could, from seeing the pictures it was made to paint, infer nothing as to the morals of the painter's elbow; but the hand with which Michael Angelo painted the "Last Judgment," might have inferred a good deal as to the character of Michael Angelo himself. Since then the universe as a whole, though as a whole only, not merely contains all the particles out of which the brain of man is made, but is also the power by which these particles are combined; and since it has not merely caused the appearance of human thought in gen-

eral, but also the appearance of all the individual thoughts, ideas, images, desires, and feelings, of which the mental life of each separate man consists, the universe must itself be thought which in some sense is akin to ours.

We must, then, recognize anthropomorphism, understood with certain limitations, as providing us with what is not only not an illegitimate, but the sole scientific means, of approaching the problem of the ultimate character of the universe. Just now we compared the Unknowable First Cause, as Haeckel, Spencer, and their whole school represent it, to a seemingly blank slab, which when cleaned by a further application of the methods of these thinkers themselves, is seen to be covered with innumerable cryptic inscriptions; and we asked whether it were possible to discover any Rosetta Stone—any bilingual tablet—by means of which we might be able to spell out a part of them; and here we have our answer. The Rosetta Stone of the universe for ourselves is the human brain, in which matter and conscious mind are immediately presented to us as identical, and we are able to watch reality at work under its two aspects. Let us see what we can make out, having this clew to guide us; and if any reader should think that we are entering on a wild-goose chase, his attention shall be called to two facts which will reassure him.

In the first place, if he is still haunted by the scientific dread of anthropomorphism, we may point out to him that we shall be in no danger of pushing our method too far, and representing the universe as a "magnified and non-natural man"; for the very reasoning which shows us that the universal mind must be like our own in some ways, shows us, as we presently shall have occasion to see, that it must be sufficiently unlike them in others to satisfy the most exacting. In the second place, if he still thinks that our method is merely fanciful, he may be comforted by finding that we shall be accompanied on the first stage of our journey by a no less unlikely person than Professor Haeckel himself.

Professor Haeckel, though he denies even more dogmatically than Spencer that the universe can possess as a whole any character intelligible to ourselves, has taken a step on which Spencer never ventured. He has pointed out that it must of necessity have a specific mental character in its parts. And, as coming from him, this doctrine is all the more forcible, because he not only does not urge it with any theistic purpose, but is on his own confession driven to have recourse to it, because his non-theistic science cannot get on without it. His argument, so far as it goes, is essentially similar to our own. Since matter, as we know it in the brain, thinks and feels, all matter must in some sense be possessed of the same qualities; for if it were not, the brain would be necessarily half miraculous—a sponge, as it were, surreptitiously saturated with some psychic essence not of its own world. We cannot do better than follow him, till

he comes to an abrupt halt, in his interesting verification of this argument by a series of detailed facts.

The more minutely we examine the combinations of matter generally, viewing them in the light of such matter as is conscious for our own experience, the more evident does it become, he says, that it possesses in all its particles the two attributes of consciousness, as we ourselves know it—that is to say, thought and feeling. He proceeds to deal with the case of feeling thus:

Whatever may be, he says, the ultimate constitution of atoms, there is one fact with regard to them which experiment renders certain. This is "their chemical affinity, or the proportion in which they combine with the atoms of other elements": and, in considering this, it is impossible to resist the conclusion that their so-called affinity is really such in a true psychological sense, and represents a subjective "inclination" as well as an objective movement. "Every shade of inclination," he says, "from the completest indifference to the fiercest passion, is exemplified in the chemical relation of the various elements to each other," just as it is "exemplified in the relations between human beings and more especially in the relations between the sexes": and this last observation leads him to a most luminous illustration of his meaning. The

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¹ Professor Haeckel restricts consciousness in its full sense to the higher animals; but he attributes rudimentary perception and sensation to all material particles.

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individual human being only begins as an individual when the maternal ovum has been fertilized by the male element. This microscopic act is accomplished by the impetuous entry of the latter into the former, which immediately closes round it, folding it in a strict embrace: and in it, savs Haeckel, we find the most singular and startling likeness to two other orders of phenomena, one higher and one lower than itself. On the one hand, it resembles, and, indeed, it may be said to rehearse, all the love-drama that will be enacted in the life of the future man: and on the other, it reproduces, in a more definite form, "the impetuosity observable in the union of one atom of oxygen to two of hydrogen, in the formation of a molecule of water." All three processes are manifestly in their essence one. They are not only processes of movement, but processes of strong emotion. Nor is this all. The analogy thus revealed between the organic combinations and the inorganic is far from ending with such single acts as these. The human being, as it is built up in the uterus, is a growing combination of cells, the individual "inclinations" of all of which jointly give rise to another in which all are absorbed and unified. Here again we have an organic phenomenon to which the inorganic world presents us with an exact counterpart. The "affinities" or "inclinations" of a pair of combining atoms coalesce into a molecular "inclination" different from that of either. Molecular "inclinations" in their turn combine again,

becoming changed in the process, as molecular structures form themselves of greater and ever greater perplexity, the evolution of all so-called lifeless substances being a psychological evolution no less than a physical. Thus all the phenomena of matter are, according to Professor Haeckel, theoretically statable in terms of inclination or feeling; and if we could only find a unit of feeling as exact as our unit of force, the formation of a molecule of water, the growth of a rose or a potato, and a man's love for a woman, could all be reduced to one common denominator.

The same reasoning, he says, is equally applicable to thought; and his argument, though in this case it is not so full as in the former, proceeds by means of reference to illustrations of the same kind. He here lays stress on the fact that when different cells combine, though they unite, as before stated, to form a single "inclination" that is communal, the individual inclination of each at the same time still persists. This, he says, is distinctly traceable in the embryo. The embryonic cells reveal two orders of movement, and two orders of inclination or feeling, that correspond to them. We trace in the first place the communal feeling of the whole; but through this, and under this, we are able to trace also the separate feeling of each cell as an individual. And if this holds good of feeling, it will hold good of thought also; and in the brain, as the complex organ of thought, there will be similarly two orders of thinking.

There will be the communal thinking of all the co-ordinated parts; and there will be the private thinking of each individual particle. Hence it will follow that the brain in its corporate capacity can no more claim to be the sole seat of thought than a parliament, made up of individually wise men, could, as a parliament, claim to be the sole seat The senators, when dispersed, and of wisdom. absorbed in other social combinations, would still carry their own wisdom with them; and the brainparticles, however combined, would still think on their own account. Such, in general terms, is Professor Haeckel's reasoning; and, though he has not vet expressed it himself in very orderly form. he leaves us in no doubt with regard to the conclusion which he draws from it. This he sums up in words which he adopts from two other writers. It is as follows: "The mind of man is only the highest development of a mental process," or "a perceptive process," which is "universal"; "and to this universal process thought itself is reducible."

In setting out, then, on our inquiry into the intelligible character of the universe, we have already taken "the first step that costs," under the auspices of that very science which condemns our quest as illusory. We have already passed into the region which Spencer declared to be unknowable. We have already been justified in our argument that not only mind in the abstract, but specific qualities of mind as possessed by man himself, exist in the matter out of which man's

mind has been evolved. This matter so far resembles ourselves, that it thinks and feels as we do, that it experiences likes and dislikes, and adjusts its movements in accordance with these feelings. "The various chemical elements," says Professor Haeckel, "perceive qualitative differences in other elements, undergo pleasure or revulsion at contact with them and execute their movements on this ground." But at this point our cicerone suddenly stops short. To go thus far is science, he says. To go further is anthropomorphism. Let us consider more precisely what the point to which he has brought us is.

He exhibits the universe as thinking and feeling everywhere, but as doing so disconnectedly, and in separate parts, only. Atoms, molecules, and cells all feel and think. So also do molecular and cellular groups. Up to a certain point the units of thought and feeling units combine into larger units, and think and feel as one. But the largest of such composite units are of very insignificant size. They never themselves combine into a unit larger than themselves. The mental organization of the universe ends with their separate existences; and there is between them no mental link whatever. The universe, considered as mind, is a mere disorderly pluralism.

A halt so arbitrary at a conclusion so lame as this, and so contrary to the analogy relied on in carrying it as far as it goes, will suggest to many people as its sole, what is doubtless its partial, explanation, a judicious fear on the part of Professor Haeckel that he will, if he goes much further, be getting dangerously near to a God. And it is, indeed, if tested by his own avowed principles, no less unwarrantable than it seems. There is, however, a certain method in it. This halt on his part logically implies, and in a sense it logically follows from, a curious incompleteness, of which he is quite unconscious himself, in his conception of the main fact on which his argument turns.

When dealing with the combinations of matter by which the ultimate psychological units build up their thoughts and inclinations into larger psychological unities, he limits his conception of combination to combinations of actual contact, such as those of the gas-atoms in forming a molecule of water, or those of the spermatozoon and ovum in initiating a human life. There are two other forms of combination which altogether escape him, and by which, when they are taken into account, the whole meaning of his truncated doctrine is amplified, and indeed transformed. One of these is the combination that results from the various specific positions which various bodies at a distance assume in relation to one another—such as that of three bodies which form the points of a triangle. The other is the combination that results from the action of bodies at a distance, by means of the ether or some analogous medium. "Through the eight thousand miles of the earth's substance," says Spencer, "each molecule at the antipodes affects

such molecule of the pound-weight I hold. . . . Each portion of matter, in its dealing with remote portions, treats all intervening portions as if they did not exist; and yet at the same time it recognizes their existence with scrupulous exactness in its direct dealings with them." All these combinations, then, if Professor Haeckel's reasoning be sound, must necessarily have their precise psychological equivalents, no less than the tactile combinations of sexual life, or of chemistry. The moment we realize this we shall see that his own conclusion, which he himself arrests at an early embryonic stage, begins to develop and expand itself. like the Effreet set free from the bottle, and stretch out its arms in a way of which Professor Haeckel has no prevision.

It is impossible here to follow in any detail the argument that has just been indicated through its intermediate stages. It will be enough to illustrate these by one or two simple examples, having reference, firstly, to feeling, and, secondly, to thought in the universe.

With regard to the question of feeling in nonorganic nature, Professor Haeckel has shown true insight—let me say this once again—in exhibiting the phenomena of sexual life as a clew to it. We will, therefore, take another of these phenomena of a kind much wider than those to which he insists on confining himself. We will take the effect of the seasons on the amative instinct generally. This is specially notable in the case of those species

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which breed only at special times of the year; but it is to a certain extent perceptible in the case of all. When the spring comes—

"Omnibus incutiens blandum per pectora amorem" when the bird

"Makes its voice heard among a blaze of flowers"-

not only does a lovelier iris tremble on the dove's breast, but the thoughts of the young man turn towards love also.

"Cras amet qui nunquam amavit, quique amavit cras amet.

To-morrow let him love who has never loved before; he who has loved before, let him love again to-morrow." Such is the burden of the Roman song of spring. To what, then, is this influence of the spring due? It must necessarily be due, in the first place, to some special physical process; and further, if all physical processes are, as Professor Haeckel says they are, always accompanied by some corresponding "perception," it must necessarily have also some special psychological equivalent. What, then, we ask, is this equivalent likely to be? It cannot be the "thought" or "inclination" of the individual particles which are involved in it; because the particles, taken individually, or combined under other conditions, exercise no influence, such as that which is here

referred to. Nor can it be the psychological equivalent of any special chemical aggregate which is formed in the spring and is absent at other seasons; for no one pretends that any such aggregate exists. The phenomenon is evidently one which has many far-reaching causes; but, whatever they are, they must include a multiplicity of relations between particles or bodies widely remote from one another, and yet related in so specific a way as to produce between them a single psychological fact. If, as Professor Haeckel says, there are "cell-souls," which are the products of molecules in contact, there must also be a season-soul, which is the product of molecules in relation; or rather a love-soul in nature whose scope is wider still.

A fact, perhaps, yet more striking, and allied closely to the above, is the part played by the sun in the production of life on the earth. "Of such life," says Professor Haeckel, "the first, the oldest, and the chief cause is sunlight." Here, in addition to the cell-souls of the male and female, we have a third agency, which originates millions of miles away, and which directly or indirectly takes part in the process. Evidently, then, though Professor Haeckel fails to see it, there must, between this third agency and the living plasm that is affected by it, be an emotional relationship analogous to that which exists between the male cell and the female, and in virtue of which they come together: and if this be so, we have at once a ligament of feeling which extends from the earth to the middle

of the solar system. Nor need we stop here. We might show, if the occasion required it, that, according to Professor Haeckel's principles, the earth, as a whole, is emotional in its polar magnetism; that molecular "inclinations" repeat themselves on a vast scale in molar, and that each planet, like each chemical element, has a molar "inclination" of its own, and pursues its course — or, as Professor Haeckel would say, "executes its movements"—in accordance with it. Thus we only have to pursue Professor Haeckel's own line of reasoning, and a web of emotions is thrown over the whole universe.

Let us next take the case of thought in the sense of logical reason, put to speculative uses on the one hand, and to practical uses on the other. Developed thought, as taking place in the human mind —this has been set forth several times already, but it is necessary here to insist on it once again consists, according to scientific and metaphysical philosophy equally, of two processes. One of these is the reception by the cerebral sense-organs of impressions from the outer world. The other is the arrangement of these by some different and active agency. For the metaphysician this agency is a stranger from some other sphere; but for Professor Haeckel and for ourselves it is a function of the cerebral thought-organs, these organs being as much a part of the universe as the food is which a man eats, and without which he could not think at all. Just, then, as the objects of thought are the

impressions which the universe makes on us, so the thought which arranges them is a criticism which, by organs of one kind, the universe makes on itself as presented to us by organs of another kind. It can, in short, be nothing else but the universe becoming humanly conscious of the principles to which its own order is due. These principles, moreover, divide themselves into two classes—the statical and the dynamical, one relating to the conditions of all change or movement, the other to the actual results of it, and in human thought there are two divisions which correspond to them. Speculative thought corresponds to the statics of the universe, while practical thought is actually a portion of its applied dynamics.

For an example of thought put to speculative uses, we will turn to the propositions of mathematics. One example will be enough for us. three angles of a triangle are equal to two right angles. For propositions of this kind metaphysical thinkers have claimed a quality of universal certainty wanting to all others. At any rate they are certain; and for science, the reason of their certainty is, that they are conscious recognitions in the abstract of facts which are universal in the concrete, and which inhere universally in the constitution of external things. But it is obvious that a fact such as the equality of the three angles of a triangle to two right angles is not embodied only in molecular particles which are in contact, and the little sporadic aggregates with which Professor

Haeckel deals; but is embodied just as completely in the configurations of all the stars, as it is in the angles of a triangular brass bell-crank. If, then, our own recognition of these facts as absolute truths has its psychological equivalent in the concrete facts themselves, the entire universe must be a nexus of thoughts of a like kind, which hold it together in its actual unbroken order.

From speculative thought let us pass on to practical; and here again Professor Haeckel shall guide us. "The various chemical elements," he says, "perceive qualitative differences in other elements, undergo pleasure or revulsion at contact with them, and execute their movements on this ground." Now, without pausing to dwell on the fact that, if they perceive qualitative differences, they must be able to calculate quantitative differences also, let us give our attention to the statement that the various movements which they execute are executed by them as a consequence of such perception. This means that the elements not merely "perceive" pleasure, but are aware of it as an object of desire before it is realized as a fact, and direct their movements reasonably with the definite view of attaining it. Here we have thought in its practical form—thought which is applied to action, and which makes action possible; and for thought of this kind the ordinary name is purpose.

Now let us ask Professor Haeckel, let us ask any sensible man, whether, if purpose is exhibited by the chemical elements—by microscopic particles,

when they form their microscopic alliances—it is possible to suppose that it is confined to parochial little incidents such as these, and that none of the larger phenomena which they manifestly unite to produce, represent in their turn any larger purpose likewise, in which the little purposes coalesce, and by which they are mentally co-ordinated, instead of being left like an army without a general—that there is thought and purpose in a molecule when it seeks or avoids another, and none in the planets when they circle round, and avoid, the sun? To suppose this is, on Professor Haeckel's principles, ludicrous. If there is purpose in the little phenomena, there must be purpose in the larger also; and when this is admitted, there is but one step more to take—namely, to merge all this hierarchy of feelings, thoughts, and purposes in one universal mind which shall unify and co-ordinate them all. And in taking this last step, we may leave Professor Haeckel behind. We have here principles for our guidance, to which he is apparently a stranger, but with which we have made ourselves familiar in the chapters which precede this.

The conclusion there elucidated was that, according to the principles of science, the universe as a connected whole, and as such a whole only, must always have contained in itself every one of its evolved products — among these in especial being the minds and characters of men; and the question towards which we have been working our way is as follows:—Is it in virtue of its possessing

any quasi-human character that the universe from the beginning has so arranged its particles that human beings and their thoughts, and the whole course of their history, should necessarily emerge, and necessarily take place one day? Accepting, then, the arguments of the most celebrated exponent of the doctrine that the universe, as a whole, can have no character at all in any way congruous to man's, we have seen that these very arguments, if only they are taken strictly, compel us to impute feelings and thoughts and purposes, essentially resembling in kind those which we know ourselves. to an ever-widening range of natural facts and processes: and now our original principle to which we have been working back, comes forward (as it were) to meet us, and shows us that the universe as a whole, of which all these processes are parts, is already logically expectant of an explanation which shall give us its character in terms of the human minds, of which it is itself the cause, and of each of which its totality is the necessary and exact equivalent.

Let us put this conclusion in a somewhat different form. If a blind man were to hear a human voice addressing him, if the voice responded to his questions, or entered into a long discussion with him, or read out to him the whole of Professor Haeckel's works, saying, 'Such are my own reasonings; such are the facts collected by me," the blind man would naturally infer that the voice, whatever its origin, represented an intelligence of the

same kind as his own. We reason with regard to the universe in a precisely similar way, and on literally the same grounds. For if the universe is, as according to Spencer and Haeckel it must be, the sole and sufficient cause of every human intelligence, and if each intelligence only is what it is, and only does what it does, because the universe is what it is, and does what it does likewise, and always was what it was and always did what it did, the universe itself, as a whole, actually is the intelligence which the human being manifests, and the human being, as distinct from it, is nothing more than its instrument.

Thus the very science which, as expounded by Spencer and Professor Haeckel, has oppressed religious thought from the days of Darwin onward, which is denounced by its enemies as the grossest form of materialism, which is in reality the strictest form of determinism, and for all practical purposes is the completest form of atheism, is found to hatch itself, under the incubation of its own principles, into the reaffirmation of a Power to which, since it feels and purposes, no other name is applicable than that of a living Deity.

DIFFICULTIES CONNECTED WITH THE MORAL CHARACTER OF THE COSMIC INTELLI-GENCE, AND THE RELATION TO IT OF THE INDIVIDUAL HUMAN MIND

If any one is inclined to think, however, that when we have reached this point we have won our way back to the Deity of religious theism, he is in much too great a hurry. If a nation wants a prime-minister, it wants not merely a man; but it wants a man of a very specific character. Religious theism makes the same demand of its God; and the cosmic Deity, as revealed by our argument thus far, exhibits a character, the reading of which is beset by the most formidable difficulties. What these difficulties are can be most easily indicated by means of a simple supposition which, if it were correct, would do away with them.

Let us suppose, then, that the only individual life produced by the whole universe had been that of Augustine, whose character found utterance in the words, "My God, thou hast made me for thyself, and I am restless till I rest in Thee." The character of the universe, in this case, need not be

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hard to conjecture. We might reasonably imagine it answering this cry from its own heart in words like those which the Gospel according to the Hebrews ascribes to the Father on the occasion of the Son's baptism—"Thou art He in whom I have my rest likewise, and for thy coming I have waited in all the prophets." Or any other type of character we might take equally well. We might take mere lovers of beauty, such as Phidias, Keats, or Shelley; and if there were nothing in the character of each to conflict with its distinctive traits, we might similarly from the character of the part infer that of the causal Whole.

The actual state of the case is, however, the exact reverse of this. We have to deal not with one man, but with many; and, instead of conforming, or even approximating to any single type, their characters exhibit antagonisms of a kind so profound and startling that, since all must be equally referable to the same living Intelligence. it is difficult to conjecture what moral character, if any, can belong to an Intelligence which expresses itself in such a number of contradictory ways. This Intelligence must, from all time, so have arranged the universe, that not only saints and martyrs, philosophers, heroes, poets, shall think its thoughts, feel with it, and will its will, but that every kind of savage and lecherous monster shall feel, think, will with it also. The universe, in short, appears to us as a sort of cosmic Briareus. with a hundred heads, instead of a hundred hands,

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each head talking a different language, and its eyes regarding us with a look of different meaning. Here are the eyes of love; here are the eyes of hatred; one mouth whispers a prayer, its neighbor mouth is blaspheming; yet the blood in the brains of all of them comes from the same heart. What can the heart be that ministers to so mad a discord?

It is idle to make light of, or seek to ignore, this difficulty; nor for us, who are in search of a reasonable vindication of religion—of religion in the sense which we are here giving to the word—does this difficulty stand alone. Even if we should succeed in harmonizing that multitude of moral contradictions which seems to make a chaos of the moral character of the Deity, there yet remains the question of the moral nature of man. very argument which has carried us from man's mind to the mind of the all-causing Cause, only does so by identifying the lesser mind with the larger, and thus seems to extinguish that freedom of life and will, a belief in which is, as we have seen, at the root of man's higher activities, and alone gives the human drama any meaning or interest.

These two difficulties will be our subject in the following Book. If we can find our way out of the first—namely, the difficulty of the Divine Character—we shall already have gone far towards seeing our way out of the second.

Meanwhile, it may seem to some that we have, with regard to the first, done nothing but render

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the riddle of existence darker by drawing the veil from the face of the "utterly inscrutable" as we have done. It may seem that Spencer's Unknowable, or his indefinite homogeneities, or the naked Chance of Haeckel, are preferable to a Deity such as that which we have just been contemplating. But it has over these one advantage at all events. Such a Deity, unlike the Chance of one philosopher, or the unresponsive Mystery of the other, exhibits itself through the hieroglyphics of matter as a living, though perplexing, mind; and we thus have a difficulty which we can interrogate, instead of a difficulty which is dumb. It may turn out to be a difficulty to which interrogation will find some answer.

BOOK IV

CURRENT EVASIONS OF THE DIFFICULTIES IN-HERENT IN ALL THEISTIC BELIEF

ONE of the great faults of the clergy in all apologetic argument is their tendency to jump at their conclusions, before the conclusions are within reach. They are like men who, having been led to believe that there is a treasure in a field near Thurso, set forth from London in the Scotch express to find it; but who skip from their carriages the moment the train first stops, and begin to sing "Eureka!" in the cloak-room at Grantham station.

If any one with this clerical tendency should have followed our arguments thus far, an excellent opportunity is offered him here of indulging it. We have thus far been arguing exclusively on the principles of that mechanical science, according to which all existence is a single necessary system—or as the clergy delight to call it, a system of pure materialism. Since, then, we have shown that even materialism of the crudest kind, which begins with the atheism of an ignorant and blaspheming boy, is bound, by the mere process of reasoning on its own principles, to end in the rec-

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ognition of a purposive God of some sort, such a reader may say that nothing remains to be done but return to that religious dualism which he has only hypothetically abandoned, and all the difficulties at present confronting us will disappear. If even materialism is obliged to believe and tremble, let us leap back into dualism, and we shall at once love and adore.

But the reader who is more patient can easily be led to see that such leaps as this, even if we take them, do nothing to achieve their object. They carry us into a different atmosphere; but as soon as we have grown accustomed to it, we see the old difficulties confronting us, changed in nothing but their dress, like the sacerdotal pater familias when he is decked out in his chasuble. Let us plunge as deep as we may into dualism, spiritualism, theism, or any other ism we please; let us leave science as far as we may behind us; and we still are confronted by the problems of good and evil, of fate and freedom—problems which Job and Augustine tried in vain to solve—problems which are older than monotheistic thought itself.

A few moments' reflection will show us that this is so. If God, said Augustine, be, as He is, omnipotent; if God made souls, as He did; and if souls sin, as they do, how is it possible by reason to escape from the obvious inference that the real sinner is God, the souls being his agents only? What is this but the question that was just now suggested to us by a thinking and purposing uni-

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verse expressing itself in thinking organisms, each of whose various groups is at moral war with the others? Again, for the scientific thinker, a difficulty even more precise is that which is suggested by the process of human evolution. The great moral difficulty which human evolution presents to us is not that it is inconsistent with a belief in divine purpose. Belief in such purpose is not the difficulty, but the source of it. The difficulty is that evolution, as embodying purpose, is apparently inconsistent with any purpose that is benevolent, or even just, to the individual. The stronger thrive and survive; the weaker pine and perish. But theology has been always familiar with the same difficulties also. The righteous suffer, the horn of the unrighteous is exalted. Towers of Siloam fall on unoffending victims. The men of Sodom, who would have repented could they only have heard Christ, were not allowed by God so much as a chance of doing so. God makes one vessel to honor, another vessel to dishonor; and men are born morally blind for no sin of their own. Evolutionary science does nothing but make these difficulties definite, and exhibit them as parts of one all-comprehending system. By doing this, however, though it does nothing to alter their character. it forces them on our attention in a clearer and more obtrusive way, and compels us to look for some answer to them of a straightforward and courageous kind. Theology up to the present time, though it has not been able to disregard them, has, while

professing to meet them, really done nothing more than hide them away under a number of pseudosolutions, which may distract attention from a perplexity, but does nothing to remove its cause.

If it were not for the fact that this method is practised in perfect good faith, and that those who practise it are the first people to be taken in by it, we might call it the method of theological conjuring, or—to speak even more plainly—the method of theological card-sharping, and I shall pause here to illustrate briefly its application to the two difficulties with which we are now confronted—namely, those of reconciling with the admitted facts of existence the goodness of an omnipotent God, and the freedom of dependent man.

Of all the arts of the conjurer, or the man who plays tricks with cards, the most important is that of distracting the spectator's attention, and by fixing it on operations which have nothing to do with the performance, make him fancy that one thing has happened, when what has really happened is another thing. In the same way the practitioners of the method now referred to engage to defend or demonstrate certain religious doctrines, for which in the course of the argument they substitute something else, and persuade themselves and others that the substitute is the "genuine article."

We will begin with the application of this method to the vindication of God's goodness; and first, by way of introduction, we will take a very rudimentary, though a very frequent, example of it.

This argument, which aims at proving the existence of a Deity, rests on the alleged impossibility of accounting for the beginnings of organic life apart from the hypothesis of some special divine interference. Why, ask apologists, do atheistic men of science insist on maintaining that the living has been evolved out of the lifeless? Simply. as one of them out of many says with severe solemnity, because the men of science must, if they do not maintain this thesis, "admit the existence of a living Creator," "to deny Whom is a crime of the most heinous malice possible to human act." Now what is the implication latent in language such as this, which gives it a sound so edifying? Is it that if we do not maintain that living matter has been evolved from lifeless, we are bound to believe in, and adore, the God of Christian theism-the allrighteous, the all-wise, all-just, the all-benevolent. But the argument itself, even if we admit its soundness, carries with it in reality no such implication as this. The alternative, so far as the case is here presented, is not between a belief in spontaneous generation and a belief in a special act of the allgood God of theism, but between spontaneous generation and the act of a purposive intelligence of some sort, who might, for anything which the argument shows to the contrary, be a careless or malicious devil just as well as a divine Father; for the various adaptations of the human organism to its environment, on which theologians dwell with so much delight, would have been equally necessary, if man was to exist at all, no matter whether he were made by a good Power or a bad one.

Here we have a trick played ostensibly with two cards, one marked with the words "spontaneous generation," the other with the word "intelligence"; but while these two are being shuffled backward and forward, a third—a theological ace, marked with the words "an Intelligence which is all-benevolent"—is produced from the sleeve of the apologist, is adroitly substituted for the second, and is at the end of the performance forced on the delighted victim.

Let us now see how this legerdemain of substitution is performed in a manner somewhat more elaborate. I will illustrate this by reference to a small volume which, owing to the position of its writer, is one of unusual interest. Its writer is the celebrated Romanes, the friend and coadjutor of Darwin, and the volume in question has been edited and published posthumously by the Bishop of Birmingham, as a contribution to Christian apologetics.

No one ever abandoned the religious conception of existence more completely than Romanes did during the active period of his life, in deference to the science whose methods he so well understood. But, always religious in temperament, he experienced during his closing years a strong desire to return to the beliefs which he had so completely

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lost; and he set himself to go over the speculative ground once more, with a view to refuting the logic which he had himself formerly used. His two main objects were, firstly, to show that there is nothing in science which conflicts with the hypothesis of an intelligent First Cause; and, secondly, that there is nothing in science which conflicts with the hypothesis that this First Cause is, in the Christian sense, good.

As to the first of these two conclusions, it is needless for us to say anything here; since, except for the fact that his arguments are curiously inconclusive, and aim merely at showing that the hypothesis of a supreme intelligence is not inconsistent with science, instead of showing that science demands it, this conclusion coincides with our own. All that concerns us here is his treatment of conclusion number two—the conclusion that we can. in spite of all appearances to the contrary, reasonably assure ourselves that the supreme intelligence is benevolent. His argument here divides itself into two main sections, one of which deals with evil as exemplified in individual experience; the other with the caprice, or unjust partiality, which is seemingly attributable to a God who, if He has really revealed Himself supernaturally, has revealed the means of salvation to so small a portion of mankind. Both these lines of argument are. we shall find, carried out by means of that trick of substitution on which we have just been commenting. In each case we shall see that, though the writer establishes something, this is not the proposition which he really is engaging to establish, but one which has merely enough superficial likeness to it to enable him to palm off a spurious article as the genuine one.

As has been observed already in the opening chapter of this volume, the kind of goodness which theism ascribes to God is a goodness which has for its object the spiritual welfare of man. If it cannot be proved that man is the object of God's special solicitude, then, for the theist, nothing has been proved at all. And that such is the case, Romanes himself admits. He admits also that the desired proof is beset with apparent difficulties. He recognizes that in the case of man, no less than in that of the animals, evolution has been the march of the strong over the dying and the wounded weak, moral evil in man's case being added to mere physical suffering: and how, he asks, can this process, "the results of which are so terrible." be justified as the work of a God whose purposes are supremely good? Having, however, thus stated the question fairly, how does he proceed to answer it?

With regard to evil, as experienced by the individual, he proceeds thus. Ostensibly taking the word evil in its double sense of physical evil and moral, he sets himself to deal with evil in the first of these two senses only—namely, that of mere pain or suffering. He reproduces the old and familiar argument that suffering is a means by

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which character may be ennobled (which it doubtless is in some, though by no means in all cases), and then, having done this, he asks us by implication to assume that he has justified the existence of moral evil also. He entirely closes his eyes to the evil which is the real difficulty for the evolutionist — namely, the moral disabilities, or the doom of moral perversion, resulting from congenital defects in the organisms of the victimized individuals, or analogous defects in the environment which has surrounded them like a second womb. A long and painful illness may chasten the temper of a saint; but how can a depraved nervous system, congenital lust or ferocity, a congenitally callous conscience, or stunted intellectual powers, afford those who are not saints any help in attaining sanctity? This, which is the main difficulty, remains just where it was. The problem of evolution, as related to the good of the individual, has not only not been solved, but it has not even been touched.

In other words, he begins, as it were, with exhibiting a card bearing the words "Evil, physical and moral," which he is ostensibly going to use in his game. He then hides this card, and puts in its place another, which bears the words "Physical evil" only. He goes through his performance with this card which has been substituted; and then at the critical moment slips back the original one, pretending to himself and his friends that he has been working with it all the time.

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Let us now turn to those wider aspects of the difficulty, which seem to be inseparable from a belief in a supernatural revelation, and which arise from the fact that such a revelation, if it ever took place, took place so late in the world's history, and even now has extended its benefit to so small a proportion of mankind. We shall find that Romanes has, in his treatment of these aspects of the matter, deluded himself by a repetition of the same kind of procedure.

The fact, he says, that Christ came so late in the world's history forms the main modern objection to the miraculous Christian system, and was. he adds, the objection to it which weighed most strongly with Darwin. "It is remarkable," he proceeds, to the delight of his episcopal editor, "that Darwin of all men should have been worsted by this fallacious argument, for it has received its death-blow from the doctrine of evolution itself; that is to say, if evolution has been the natural method of causation. Christ could not have appeared at any earlier date, without having violated the method of evolution." Thus, he proceeds to argue, a study of evolution shows us that, if the fact of the bodily man being the product of an evolutionary survival does not disprove the fact that God purposed his bodily organism, the fact that the spiritual man—the man fit for the blessings of revelation - was "winnowed out" in the same gradual way, positively proves the fact that God purposed to save man's soul, and provide it

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with the means of salvation as soon as man was fit to receive them.

Now here is a conclusion which, so far as it goes, is plausible. It labors, however, under the same defect as the other. It is made to look like the conclusion which the apologist wants to establish: but it is in reality something totally dif-It is made to look so by a playing with the two meanings of "man," similar to the previous playing with the two meanings of "evil." The word "man" may mean either the individual, or it may mean the type or race. Now what theism asserts, and what the apologist wants to prove, is that God is primarily good not to the race, but to the individual. The theistic God is represented as addressing the individual thus: "I have made you in order that you should be perfect, as I, your maker, am perfect. My love for you is so vast that the whole end of creation might be nothing else than the welfare of your single soul." Here is the conception of God which Romanes sets out to vindicate: and what is the conclusion which emerges at the end of his game of logic? The conclusion that God cares for the individual human being only as Napoleon cared for the individual soldiers whom he valued as means to the victories which required their unregarded death.

And this conclusion Romanes actually mistakes for the other. Nor in doing so is he at all exceptional. His editor, the Bishop, had done the same thing before him. If the world is inclined to doubt

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God's scheme of revealed salvation, because it has been so slowly developed, and has even now been withheld from the great majority of mankind, the Church, says Bishop Gore, has an answer which is as complete as it is short and gentle. "You are ignoring," answers the Church, "the gradualness of the Spirit's methods." This is the argument of Romanes, tucked into a clerical nutshell; and the world's answer to the Church is hardly less laconic: "We are not ignoring the gradualness of the Spirit's methods at all. The gradualness of the methods is precisely what we criticise and arraign."

So much, then, for the method of theological conjuring, as applied to the task of rendering the divine goodness credible. Let us now consider it as applied to the task of rendering credible the moral freedom of man.

Here we have, to use our previous simile, a trick played not with two cards but with three. What those who play it set out to prove is that, whenever a man sins, and, consequently, deserves hell-fire, he is just as free not to sin as to sin. But the word "free" is used in two other senses besides this—namely, as meaning that the man is free from the physical constraint of others, and also as meaning that he is free from any constraint whatever except what is imposed on him by his own temperament or character. The first connotes the freedom—the distinguishing kind of freedom—which the apologist of religion pledges himself and endeavors to vindicate; but what he does is to shuffle all the

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three freedoms together—ostentatiously to make light of the second, ostentatiously to defend the third, and then, by a further shuffle, to pretend that he has proved the first.

This remarkable feat is being performed over and over again by apologists at the present day, bad, good, and indifferent. One example of it, which shall be taken from a distinguished source, will be enough for us. It occurs in an Essay which Professor Lloyd Morgan—a cultivated and careful thinker, and Head of a well-known college - has written in answer to the determinism of Professor Haeckel. "You may at first," he says, summing up his previous arguments, "find some difficulty in reconciling human responsibility with the determinism demanded by science. . . . But on what does the determinism of science rest? Surely on observed uniformity. On what does it rest in the field of conduct? Surely on the uniform activity of a given character. Just in so far as my character forms a coherent system, just in so far as my freedom lies in the absence of determination by anything outside myself, can you hold me, that is my character, responsible for its acts."

Now here, no doubt, we have freedom of a certain kind; but it is not the kind that the would-be believer wants. Granting that we are free in a sense, because our characters determine our actions, he wants to be assured that we are free because we determine our characters. But this is precisely the doctrine that Professor Lloyd Morgan suppresses,

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because it is inconsistent with "the determinism demanded by science." Let us suppose that Professor Lloyd Morgan dismisses two butlers in succession—one for breaking the teacups because he is half-blind; the other for stealing the teaspoons because he is disposed to do so. It is obvious that the Professor, while dismissing, would excuse, and not blame the former, because his breakages, though not "determined by anything outside himself," were due to characteristics in himself which had been determined for him by his birth and circumstances. He is, therefore, professionally, but not morally, blamable. But if butler number two, when caught in the act of theft, were to excuse himself by saying, "I stole because my character is a coherent system, and the propensity to steal has been ingrained in me from my earliest childhood," would the Professor think the excuse valid? According to his own principles, he is certainly bound to do so; for "the determinism demanded by science" will allow of no single moment, from the time when the butler was a fætus to the moment of his detected theft, when his character was not, just like the other butler's blindness, determined by the constitution which he inherited, and the circumstances in which his fate enclosed him. We can only say that, if the excuse of the thief is valid, nothing is inexcusable, or, rather, nothing requires excusing: moral responsibility, as distinct from legal or professional, is a dream: and the value of a freedom which means

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no more than this, that we are free to act in accordance with our own characters, may be further seen by reflecting on the equally obvious proposition that nobody is ever free to do anything else. At all events, as a tradesman would say, this is not the "brand" of freedom which the would-be believer asks for, and which alone he wants to get: and Professor Lloyd Morgan, and the numbers who argue like him, are merely playing a trick which aims at producing the impression that a card is the ace of diamonds when really it is the knave of spades.

Such are the methods, and such are the only methods, employed by theologians up to the present time, in their efforts to deal with the two fundamental difficulties which, whether stated in terms of mind or matter, stand in the way of a reasonable assent to theism. What, then, is the moral to be drawn from this fact? It is not that theologians. as a class, have been exceptionally incompetent thinkers, but that they have attempted a feat which is in its nature impossible. In other words, the two difficulties in question are such that man's mind being what it is, no direct or formal solution of them is within their reach; and the utmost that the keenest intellect which attempts such a solution can do, is to disguise the difficulties by some more or less skilful trickery.

Is, then, the task of overcoming them hopeless? In the following chapters both difficulties will be reconsidered—firstly, the difficulty involved in a

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belief in the divine Goodness; secondly, that involved in the belief in man's personal freedom: and it will be shown that a method of approaching both, other than the method of direct attack, is open to us, by means of which both, instead of being theoretically annihilated, may, for the practical reason, be robbed of their apparent force.

THE PRACTICAL EVIDENCES FOR, AS OPPOSED TO THE DIFFICULTIES INHERENT IN, A BELIEF IN THE GOODNESS OF THE DEITY

Let us state once more in those scientific terms which throughout this volume have been employed by us, the difficulties inseparable from a belief in the Goodness of the Universal Cause.

Men are, as beings who feel and reason, the products of a cosmic Intelligence, who, when described in terms of matter, appears as a principle of Determinism, but when expressed in terms of mind, appears as a principle of Determination, and who has necessarily purposed that men should be what they are. Whatever, therefore, exists in men, exists also in the cosmic Cause. Now everywhere in human beings are found qualities and ideas of Goodness; therefore Goodness must, in some sense, be a property of the cosmic Cause likewise. But in human beings, besides qualities and ideas of Goodness, there exist ideas and qualities of negative and positive evil, always in conflict with the former. If, therefore, in a sense that is morally intelligible to ourselves, we are bound to conclude that the cosmic Cause is good, we are bound by the same reasoning to conclude that it must be evil also; for the evil, no less than the good, must from all time have been purposed by it; and Judas must have been in the womb of the nebula no less than John. We have, then, or we seem to have, two sets of counterbalancing facts, like equal weights lying in opposing scales, each of which robs the other of all moral significance, and entirely shuts us out, for all practical purposes, from any intelligible relationship with the Power to which we owe our existence.

Is it necessary for us to accept this meaningless equilibrium as a fact? Such is our question; and our first step towards answering it is not to look directly for any answer at all, still less for a complete answer; but to consider whether the facts, as ordinary observation gives them to us, indicate any probability that a satisfactory answer exists. In other words, we must set ourselves to consider first, whether the appearances—the data of our problem—are really quite what they seem to be. Is the equilibrium between moral good and evil really so complete that the inferences to be drawn from the latter nullify those which, apart from it, we should draw naturally from the former? Is there not something to indicate that the weights in the opposing scales, equal though they seem in bulk, have different specific gravities?

When we begin our inquiry in this tentative way,

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we shall at once be rewarded by a certain affirmative answer. We shall find that the inference, drawn from the facts of human goodness, that the character of the cosmic Intelligence must be one of goodness also, has elements of probability which are wanting altogether in the opposite inference, drawn from the facts of evil.

These elements of probability are two. We are already familiar with one of them. We have not yet touched on the other. Let us first briefly reconsider the former.

The belief that God is good is a belief which, apart from the evidence of facts taken in detail. possesses a practical quality which the belief that He is evil or indifferent does not. It is, as has been shown already in Book II. of the present volume, a practically constructive principle. Races and nations, in proportion as they explicitly or implicitly hold it, develop in the direction of what by all men is recognized and valued as civilization. All the finer adornments and higher pursuits of life spring from it, and cluster round it, like flowers from a living stem. Philosophy and speculative science are supplied by it with their main motive. It gives vitality to the higher ambitions of nations. The higher forms of art would without it have no existence. There would have been no statues of Pallas, and no pictures of Mary; nor would life have ever become that system of personal judgments-of practical and moral æsthetics-which great art reflects.

Nor is this all. Man's purely sociological morals, as we saw in a former chapter, which sum themselves up in the instinct which we call conscience, have their origin in the exigences of gregarious life, and are not directly dependent on anything beyond experience. But the belief here in question, that the cosmic Intelligence is good—that it feels with man, and wills that social development to which man is, in any case, driven by his nature and his terrestrial circumstances, connects itself with the voice of conscience in a very remarkable way, and, though not dictating its judgments, invests them with a new rationality. It connects the will to live, as existing in the social organismwhich, taken by itself, the individual might afford to despise—with the will of the universal Power to which the organism is itself due, and thus invests the moralities of purely utilitarian conduct with a dignity, an importance, and an obligation, which may be neglected indeed, but which cannot be denied. The belief, in short, that the cosmic Intelligence is good, is a sort of intellectual eucharist, by which the universe is made one with the activities of the individual man.

That such is the case will become yet more apparent when we consider the results that will, or that will not, follow from a belief that the cosmic Intelligence is evil, or else indifferent.

In the first place, we shall see that it would be altogether impossible to imagine any fruitful connection, such as that which has been just described,

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between the cosmic Intelligence and the constructive activities of man, if man believes this Intelligence to be hostile to, or even careless of, himself. Evil or indifference in this objective sense, as attributed to the Power by whose purpose man has been made, can, in relation to all man's social efforts to better himself, be only a disintegrating—it cannot be an integrating—principle. A creed, then, according to which this Power is evil or indifferent, cannot be made to supply us with any theory of social life, whose results would be otherwise than intolerable to the common-sense of mankind. And the same observation applies to those personal virtues or qualities by which the morally civilized man is distinguished from the moral savage. It has been shown already, and we need not repeat the argument, that every recognition of Goodness, Truth, or Beauty, as things which are good in any absolute sense, is a recognition of a Goodness in the universe, with which man is able to ally himself; but if the existence in the universe of any such Goodness is denied by us, Goodness, Truth, and Beauty, as sought for by civilized men in high emotion, in knowledge, in art, in conduct, lose the colors for which they were mainly valued, like a stained-glass window, when the light no longer shines through it.

And the same thing is shown in an interesting way by a fact which seems at first sight to tell in the other direction. There are, it must be admitted, certain phases of civilization which the

denial of absolute Goodness not only does not destroy, but actually calls into very pleasant existence. These are the civilizations of limited social circles, in which the evasion of ordinary principles is reduced to a fine art in practice, and accompanied in conversation by a ripple of appropriate cynicism. But such denials of Goodness on the part of certain persons, even when not directly provoked by the exaggerated affirmations of others, are in themselves essentially parasitic. Unfortunately, these live on the affirmations which they attack; and can only continue to flourish because their attack is but partially successful. Cynicism, regarded as a civilized form of thought, only holds itself upright by the aid of the contradictions which it provokes. Take the contradictions away, and it lies on the ground helpless.

We thus see that, even if the evil in human life appears not merely to balance, but actually to outweigh the good, the belief that, in spite of appearances, the character of the cosmic Intelligence is indicated by the good more truly than it is by the evil, is, by its practical consequences, invested with an order of probability, with which no accumulation of evidence could avail to invest the other. Civilization is a concrete fact appealing to the practical judgment. It stands essentially for a growth and unfolding of human nature, which is just as unequivocal in its character as the growth and unfolding of a tree; and the practical judgment of mankind is in no doubt as to the value of

it. If, then, we find that a belief in the goodness of the cosmic Intelligence is invariably associated with this orderly and unmistakable growth, and is obviously a principal source of the vital activities that are involved in it; and if we find, on the other hand, that the belief opposed to this has the contrary effect of causing the growth to cease, the leaves to wither, and the forming fruit to shrivel, the presumption is inevitable that the affirmative belief is in harmony with some cosmic fact, while the negative belief is not. We can at present speak of a presumption only; but even a presumption in favor of cosmic Goodness is at all events an advance on that stupid and hopeless bewilderment with which the balance of good and evil at first sight affects us.

All these arguments, as the reader will recollect, have been urged at length in our second book already. But there yet remains another which, though closely associated with these, I have thus far refrained from considering, reserving it for the present moment. Hitherto we have dwelled only on the effects of religious belief, as manifesting themselves indirectly in the general quality of life. Conscious religion itself has been carefully passed over. We must now make good our omission.

It has often been pointed out that Protestant Christianity is at a great disadvantage in one respect as compared to Roman. While the doctrines of Rome are enunciated by a definite external authority, which says to all who accept it precisely

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the same things, the doctrines of Protestantism are supposed in the last resort to derive their authority from the spiritual experiences of the individual: which, it is added, are rarely in any two cases the same, and never can have any authority for any one but the individual himself. And if, in speaking of doctrines, we mean doctrines taken in detail—doctrines relating to the interpretation of Biblical texts—to faith, to works, to grace, and to the manner in which Christ redeems us—this criticism is just, and its justice becomes more apparent, in proportion as the experiences in question are of a marked and exalted character. With Protestants, they reach their climax in the remarkable crisis called conversion. But this, as has clearly been shown by Professor William James, is not a phenomenon by any means confined to Protestants. It is generically identical with the ecstasy, not only of Roman, but also of Mahometan saints, of Indian ascetics, and of the pagan philosophers of Alexandria. The details of the experience are different in different cases. Wesleyan is miraculously certified of the truth of Wesley's gospel. The Romanist is similarly certified of the truth of all Roman error. Paul is addressed by Jesus; the Alexandrian philosopher by Apollo; the Mahometan by the Blessed Prophet. There can, therefore, be no ratification of any one creed in particular. But the essential features of the experience are in all cases the same. There is a sense of absolute union with an infinite and

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benignant Power, in whom all discords are harmonized, all doubts set at rest, and the soul becomes one with the Goodness at the heart of things. So distinct and unanimous as to this are the records given of what they went through, by persons of hostile creeds and of distant times and countries, that, apart from the local color due to their special theologies, they might have been written by the same person, and relate to the same occurrence. In proportion, then, as the moments of supposed religious insight fail to give any support to the doctrinal implications which differentiate them, their bearing on the general conclusion to which they all point is significant.

If, however, these supreme experiences were as rare in kind as they admittedly are in degree, their significance, such as it is, after all might not be great, despite their wide diffusion in respect of time and place. But it so happens that, instead of being rare in kind, they merely exhibit in concentration the precise convictions and feelings which form the essential content of civilized religion everywhere; and the scientific significance of religion, regarded as a general fact, cannot be better illustrated than by reference to the words of Spencer.

"The universality of religious ideas," he says, "their independent evolution among different primitive races, and their great vitality, unite in showing that their source must be deep-seated instead of superficial. . . . Should it be asserted that the religious ideas are products of the religious

ious sentiment, which, to satisfy itself, prompts imaginations that afterwards it projects into the external world, and by-and-by mistakes for realities . . . there still arises the question—Whence comes the sentiment? . . . (It) is displayed habitually by the majority of mankind, and occasionally aroused even in those seemingly devoid of it. It must be classed among human emotions, and we cannot rationally ignore it." He then proceeds to discuss what the content of the emotion is, and reaches the conclusion, which has already claimed our attention, that, springing from a sense of our impotence to explain the origin of existence, it consists of a vague awe in the presence of a blank mystery. A more singular example of the complete miscarriage of analysis it would be difficult to find in the history of philosophic speculation; but the passage just quoted is valuable as showing that scientific thought, though it misses the meaning of religion, admits that it must mean something.

Let us, then, pick up the thread of the argument which we just now dropped, and repeat our assertion of what the content of religion is. It is essentially a desire for an infinite First Cause of things, which is, in the act of being desired, affirmed to be all-good; and is not a mere awe—it is essentially the reverse of this—at an infinite puzzle about which we can affirm nothing. If Spencer had, as an anthropological student, merely considered the ease with which children are taught to pray, and what prayer obviously means for them,

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he need hardly have looked further. He would have had an illustration of what the essence of civilized religion is. In the child's case, as any nurse could have told him, it springs from, or else it responds to, a sense on the child's part that the greatest of all Powers is a good Power. What it is for the child, it is for the adult also; while the quickness with which children grasp an idea so abstract as that of an unseen Goodness with which they can hold communion, adjusting their whole system of emotions, and some of their conduct in accordance with it. illustrates more clearly perhaps than any other fact the great truth on which Spencer himself insists—namely, that human religion is the product of far-reaching and deep-seated causes, and that there must be something which corresponds to it in the general constitution of the universe.

Having, then, seen what in reality the content of religion is, we are in a position to adopt this unanswerable contention of Spencer's and apply it to a purpose of which he himself never dreamed. But before we put the final point to our moral, let us take religion once more, as Spencer himself understands it, and consider in detail the process to which he ascribes its origin. All the contents of human consciousness, he reminds us, consist of "accumulated modifications caused by the intercourse of the organism with its environment." Such being the case, then, he proceeds, ever since thought began, human beings have been finding

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out by experience that the First Cause of the universe is unthinkable by the human mind, and religion, he says, is the emotional epitome of this endless series of disappointments.

Now admitting that, if the content of religion was what Spencer takes it to be, this theory of its origin would afford a sufficient explanation of it, let us take the content of religion as we have seen it to be in reality, and consider how the same theory can be made to account for that. Can we suppose that men, ever since men were, have found the workings of Nature so wholly favorable to themselves or unfavorable only in so very slight a degree, that religion, as a sense of the goodness of the Power behind Nature, is merely a recognition, grown instinctive, of a fact that was always obvious? On the contrary, experience, from the earliest times till now, has presented Nature to man as the source of such unending evils—such moral injustice, such unmerited and random pain that the benefits mixed with them would, were the case judged superficially, have rather afforded a standard by which Nature might be condemned as hostile, than ground for supposing that it was absolutely and supremely benevolent. The religious sense, then, of the supreme goodness of God cannot be, like our perception of the necessity of mathematical truths, an hereditary induction from facts to which Nature offers no exceptions, and the contrary of which is inconceivable because there are no examples of it. It must evidently, therefore,

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have some deeper source than experience, if we mean by experience, our conscious "intercourse with our environment." What, then, can that source be? The answer to this question probably lies in the fact that the conscious experiences of the brain, and its conscious thought with regard to them, which are all that thinkers like Spencer have thus far had in view, form merely a part of the process from which the contents of consciousness are derived, much of the work being done by brainaction of the subconscious kind: but, without pursuing this train of speculation here, it will be enough to observe that, be its source what it may. the emotional affirmation of religion that the universe, or the Power which the universe represents. is good, cannot have been the outcome of any general supposition on man's part that the universe either inflicts on him no evils at all, or at all events none that are comparable to its overwhelming benefits, for man has always been bitterly convinced of the contrary; but must be a response to, or an adumbration of, some principle, which lies below this rind of superficial experiences, and which cannot, therefore, be touched by the fact that modern science has exhibited the evils of such experience as part of some general system, and robbed them of the aspect which they once had of constant divine caprice.

We accordingly arrive at the somewhat unexpected result that, if the principles of science are rigidly applied to the question, and religion, in the sense of an assertion that the cosmic Intelligence is good, is explained as a natural product of the "intercourse of the human organism with its environment," the force of this assertion becomes not less, but greater, when the various facts involved are viewed in the light of science, than it is when they are hidden in the mists of a vague theology.

The general conclusion, then, which we have thus far reached is as follows. If all deep-seated and widely spread beliefs have, as according to strict science they must have, some equally general fact in the constitution of things as their origin: if. moreover, the religious assertion that the supreme Principle is good represents, as it does, one of the most powerful instincts of human nature: and. further, if this assertion, when assumed in practical life, results in what by all is recognized as human development, while the denial of it results in what is similarly recognized as decay — then, in spite of the difficulties which the facts of evil present to us, the balance of probabilities in favor of the religious assertion is, from some points of view, overwhelming.

It must, however, be remembered that, in assenting to this conclusion, we are merely defying our difficulties; in no sense are we solving them, and although they may be, from some points of view, neutralized, from other points of view their effects may still be inhibitive. We must, therefore, set ourselves to face the difficulty of evil directly, and ask how, even if we confidently assure ourselves that

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Omnipotence is wholly good, we can, in presence of the fact that evil actually exists, and is, as a world-wide system, renewing itself every moment, save ourselves from a contradiction in thought that tears reason to pieces, and urges us to abandon a belief which renders such havoc inevitable.

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THE PRACTICAL SOLUTION OF THEISTIC DIFFI-CULTIES WHICH ARE INTELLECT-UALLY INSOLUBLE

THE difficulty of honestly believing that the purposive Cause of all things can be absolutely good, and yet purpose the existence of evil, depends on a principle in the absence of which no thought would be possible. This is the principle, not that nothing can be true which transcends thought altogether, but that nothing can be true which, coming within the sphere of our thought to such an extent as to admit of being definitely stated. can vet be stated only in terms that contradict each other. If we empty the words good and evil of all comprehensible meaning, to assert that evil is produced by omnipotent Goodness, is not to propound a difficulty. It is simply to assert nothing. The difficulty only arises when good and evil are understood in their opposite and familiar senses as factors of our own experience. Then the assertion that evil can be produced by omnipotent Goodness becomes intelligible and incredible simultaneously, like the classical absurdi-

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ties of Euclid, which if any proposition implies them, show that such a proposition must be false.

Such at least is the case seemingly; but is the parallel perfect? Euclid's absurdities are used by him in the following way: He takes a case in which there are manifestly but two alternatives, and by exhibiting one as absurd he demonstrates that the other must be true. But can we argue thus in relation to good and evil? We start with assuming a purposive Cause of some kind, who, having produced all things, has produced evil among them. The question is, what is his moral character? Is he good, bad, or indifferent? One of the three he must be. We reject the supposition that he is good, for this we recognize as absurd. There are only two other alternatives. Were our problem like one of Euclid's, our answer would necessarily be that he is either bad or indifferent. Let us, however, try these in succession, we shall find that they are both of them no less absurd than the first. If a Power which produces evil cannot be wholly good, a Power which produces good cannot be wholly evil; while to call a Power which produces two warring elements indifferent is like calling a couple indifferent because we are unable to say whether the wife thrashes the husband or the husband the wife most soundly. We are, in fact, in a position like that in which Euclid would have found himself if, having invited us to reject a certain geometrical conclusion on the ground that,

were it true, a part must be greater than the whole, he discovered that the adoption of its only possible alternative involved the assertion that parallel lines meet.

What, then, are we to say of a logical situation such as this? The reader who is unaccustomed to the discipline of systematic thought will possibly suppose it to be so paradoxical and peculiar that it must have been wrongly stated, and that really there is some simple escape from it. It is, however, only one of a system of similar situations in one or other of which thought ultimately finds itself, let it only travel far enough towards any point of the compass. It may possibly surprise many readers to learn that there is no speculative conclusion in the whole region of speculation with regard to which all philosophers are more unanimous than this, that all our conceptions of everything end in some contradiction; but of all such conclusions it is the one which has, in proportion to its importance, received least serious attention, or which has, when emphasized, been emphasized to such barren purpose.

In order to show clearly what the scope of this conclusion is, I shall summarize its details, as elaborately set forth by Spencer, who borrows, in dealing with some of them, the language of Dean Mansel—one of the keenest philosophic thinkers that the Church of England has produced.

Man, says Spencer, is, by the very constitution of his mind, driven to inquire into the causes of

the things about him—first the proximate causes, then those more remote, till at last he comes to the question of what caused the universe. To this question, says Spencer, there are but three answers conceivable. One is that it is self-existent; another is that it is self-created: the third is that it was created by some external agency. But though each of these answers has a sort of verbal meaning, none of them has a meaning which the mind can really think. If we say that it is self-existent, we mean that it existed always; and if we try to follow this meaning out, the mind is drowned in the depths of a past eternity. If we say that it is self-created we are in a worse case still; for we must mean that before it created itself it did not exist at all, and that thus an absolute nothing became the first cause of all things; while if we say that it was created by the agency of an external God, our difficulties are just as great, and considerably more elaborate. In the first place, such a God, if he is the cause of all things, must be infinite, for otherwise something will limit him not caused by himself. In the second place, he must be absolute, or constrained by no necessity to do or become anything, or to refrain from doing or becoming it; for otherwise the determining necessity would be the real First Cause, not he. Such conclusions, says Spencer, are common to all thinkers; and having brought us to this point, he passes us on to Dean Mansel, who shows us that, while causality, infinitude, and absoluteness

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are essential to our conception of Deity, and a God would be no God who did not possess them all. yet they cannot by any possibility be ascribed to the same Being without doing violence to the first principles of our reason. Thus, an Absolute Being, as such, cannot reasonably be thought of as a cause; for a cause is, in its essence, related to a something which is not itself. Nor again, if the Absolute is not only absolute, but infinite, is it possible to conceive that, having existed first by itself, it should by an act of will have turned itself into a cause subsequently; for the infinite can never become that which it was not always. Further, an act of will implies purpose and consciousness: but how can the Absolute and the Infinite be thought of as possessing either? Not only can it purpose nothing, for all things are fulfilled in it already: but it cannot even be conscious, for to be so implies subject and object, and the Absolute and the Infinite is incapable of such division. Thus, says Dean Mansel, to come down to particulars, how can the Infinite and the Absolute be conceived of as causing the universe? Infinitely perfect as he must have been before the universe was, how can the universe have ever become a need for him? To answer these questions in terms of reason is impossible. If we analyze our conception of God. He resolves himself into a chaos of contradictions; yet unless these contradictions are united in Him, He is not a God at all.

Such, then, says Spencer, is the pass to which

theology brings us; and he invites us to see how the case stands with science.

Without troubling our heads about the First Cause of the universe, let us consider, he says, the facts of the universe with which science directly deals. They are space, time, matter, the motion of matter, and our own conscious selves in which all these things appear. We shall find that every one of them, if we only think out our conception of it, is just as self-contradictory as the theologian's conception of God.

To begin with space and time—we know well enough what we mean by them, for practical purposes, and within very narrow limits; but let us carry our conception of them further, either inward or outward, and it dies in the infinite on the one hand, and it dies in the infinitesimal on the other. Further, he asks, what are they? Do they exist apart from ourselves, or are they mere forms of thought? If they are not mere forms of thought, they must be either things or nothings. We cannot say that they are nothings; yet, if things, they have no attributes. If, on the other hand, they are forms of thought only, they are, as we have just seen, forms which cannot complete themselves.

Let us turn to matter, and we encounter a similar difficulty. Matter, in masses, is made up of countless particles; but the masses occupy space, so the units must do so likewise; for no aggregation of ciphers will ever make up a number. But

the separate particles, however small we imagine them, are, in theory, divisible forever into parts that are smaller still. Thus the ultimate units must either always elude us, or be points which are indivisible because they have no dimension. In the one case mass is unthinkable when we try to take it to pieces: in the other case it is unthinkable when we try to put the pieces together. Thus, even our conceptions of a brick, a stone, a potato lie in our minds like so many grains of gunpowder, which explode when touched by analysis, and perish in their own smoke.

From matter let us turn to motion. Here again, in this universal phenomenon, the reality of which no one doubts, and without which we could not live, we have something which for strict reason is altogether impossible. A body must always be in some particular place, nor can it ever be in two places at once. A body, therefore, moving from one place to another must occupy in its passage an infinite series of places. Where is it when it is passing from one place to another? However close to its predecessor each new place may be, there must between the outlines of the two be some intervening space, for otherwise the body would not get on at all. How can thought represent to itself the body as traversing this? It cannot—the thing is impossible: and thought is just as incompetent to represent to itself the initial transition from complete rest to movement, and the counter-transition from movement to complete

rest, as it is to represent to itself the events which happen in the interval. In short, says Spencer, "all efforts to understand the essential nature of motion do but bring us to alternative impossibilities of thought."

Finally, let us turn to the fact of our own consciousness, which in all our reasoning about everything else is presupposed. What is this consciousness? For us it is our first certainty; and vet for thought, it is nothing but a travelling and unseizable moment — a dimensionless point at which that which has been ends and that which will be has not yet begun. In it we live and think. yet it vanishes when thought approaches it. We have here, says Spencer, "the same kind of perplexity as that presented by the relations of movement and rest," and from this perplexity we are led on to another. When we speak of ourselves as conscious—indeed, when we speak about anything — we necessarily believe and imply that a something called self exists. But how can this irresistible belief be justified in terms of reason? "If," says Spencer, "the perceived object is self, what is the subject that perceives? Or if it is the true self which thinks, what can the other self be that is thought of?" The truth is, he proceeds. that "a cognition of self implies a state in which knowing and known are one," and this, while practically the assertion, is logically "the annihilation of both." Thus, he says, "the personalty of which each is conscious, and of which the existence

is to each a fact beyond all others the most certain," is a thing the conception of which reason is unable to tolerate, unless it is prepared to dismember itself on the rack of its own self-contradictions

Such, briefly summarized, is the case as set forth by Spencer, his own reasonings with regard to the scientific universe being paralleled by those of the theologian, with regard to the theologian's God.

Let us try to conceive an infinite and absolute God, and the more systematic our attempt the more thoroughly does it defeat itself. Such a Being, says Dean Mansel, "cannot be conceived as conscious, neither can He be conceived as unconscious. He can be conceived neither as simple or complex; neither by difference, nor by absence of difference . . . neither as personal nor as impersonal. He cannot be identified with the universe, neither can He be distinguished from it."

Let us try to conceive the universe, and the various elements comprised in it, as modern science studies them; "and," says Spencer, "the same conclusion is arrived at, from whatever point we set out." If respecting the "origin of things" in general, and "the nature of things" in particular, "we make some assumptions, we find that, through an inexorable logic, it inevitably commits us to ultimate impossibilities of thought: and this holds good of every assumption that can be imagined."

Mansel and Spencer are only stating here a

general conclusion to which accurate thought leads everybody: but, as I said before, there is no important conclusion whose meaning has been so completely neglected, or so completely misinterpreted as this. Let us see how it is interpreted by the Dean and Spencer respectively.

The Dean's interpretation of the fact that the character of the theistic God cannot be conceived by reason, unless reason contradicts itself, is this—that it merely exemplifies the transcendence of the divine Nature, to which we may freely impute whatever our faith demands of us, leaving the contradictions to take care of themselves. Thus, he says, in spite of all intellectual difficulties, "it is our duty to think of God as personal; and it is our duty to believe that He is infinite."

The interpretation of Spencer is in direct opposition to this. The fact, he says, of our knowing from experience that the First Cause is unthinkable, instead of leaving us free to impute to it any qualities we please, sternly forbids us to impute to it any qualities at all. To suppose, as the Dean does, that morality can oblige us to assert what our intellect obliges us to deny, is, according to Spencer, monstrous; and he ends his confession of faith with the following emphatic words: "Let those who can believe that there is eternal war set between our intellectual faculties and our moral obligations. I, for one, admit no such radical vice in the constitution of things." It is Spencer's position, rather than the Dean's, that here specially

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concerns us; and the words just quoted will presently throw much light on it.

Let us consider Spencer's reasoning with regard to this question carefully. It is not his reasoning only. It is really the reasoning of all non-theistic agnosticism reduced by a powerful thinker to a seemingly coherent form. We will follow it step by step, reducing it still further, so that nothing may claim our attention but its few really vital parts.

It starts with the admission that there must be a universal Cause—or perhaps it would be better to say a universal Principle—of things, and that this Cause or Principle must be at once infinite and absolute. So far science and theistic religion agree; but at this point theistic religion insists on proceding further, and attributing to the universal Principle not only absoluteness and infinity, but certain other qualities also, which derive their meaning from the analogies of human nature. These qualities are three in number — intelligent purpose, which is ascribed to the universal Principle as a causal Being; perfect goodness, which is ascribed to it as a moral Being; and personal consciousness, which is ascribed to it in both capacities. Here the dispute between science and theistic religion begins. Can an ascription of such qualities to the universal Principle be justified? Theistic religion naturally says Yes. Agnostic science, as represented by Spencer, says No.

Now why does he say No? He says No because,

on the admission of theological thinkers themselves, these qualities as attributed to the universal Being are unthinkable. The theistic God is an aggregate of qualities which the imagination has juxtaposed, but between which, for the intellect, there can be no real connection; and a large part of scientific and philosophical thought is simply a dissolution of aggregates of this illegitimate kind.

The general doctrine, then, that emerges from the Spencerian critique is this—that nothing can, in reason, be held to have any existence, if the various qualities essential to the conception which we form of it, are found by reason to contradict each other, when attributed to the same thing. But how, if such be the case, does anything exist at all? For existence in its totality is, according to Spencer himself, just as unthinkable for science as it is for the narrowest theology. To this he answers that the objective existence of something is a necessary postulate of thought, and thus far we may agree with him; but the very mind, he says. which affirms that this objective something exists, denies us the right of making any further assertions with regard to it. All that we can know consists of modes of this unknowable something. is a mode of it; motion is a mode of it; we ourselves are modes of it; but as to what it is in itself, of that we can know nothing.

Now let us, for the moment, grant that all this is true. It does but bring us to the threshold of the critical question. Matter, motion, and ourselves,

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in some sense or other exist, and they exist not only in the sense that we are able to assert their existence. but in the sense that we are able to assert about it a number of very definite things. They form, indeed, the principal subjects of the whole of Spencer's works. Even if we say, then, that these things are merely modes of an unknowable something else, yet for us, in a practical sense, they are intimately known realities. It is only because they exist for us, that we infer something else which transcends them. But each of these things, according to Spencer, not only in its underlying reality, but as we ourselves know and experience it, is just as unthinkable as the underlying reality itself. Let us take the case of matter. We have all of us a working conception of what material things are, which experience shows us to be, so far as it goes, correct. If we had not, there could be no science. And yet we need only, under Spencer's guidance, meditate for a quarter of an hour and a half-penny becomes as unthinkable as the theologian's God. The case is the same with motion. Every time the train took Mr. Spencer from Brighton to London and back again, it was accomplishing a feat which, as he himself has shown us, thought can only present to us in propositions which ultimately contradict themselves; while, when we came to our own personalities, the mystery is deeper still. "A true cognition," he says, of our own personal existence. "implies a state in which the knowing and the

known are one—in which subject and object are identified, and this Mr. Mansel rightly holds to be the annihilation of both." And thus, he says, in words which we have already quoted, "the personality which is to each a fact beyond all others the most certain, is a thing which cannot truly be known at all."

Here at last we come to the critical question itself. What is the legitimate conclusion to be drawn from all these arguments? It is the very opposite of that so perversely drawn by Spencer. It is not that nothing can, in reason, be held to exist, if the qualities essential to our conception of it are found in reason to contradict each other; but that nothing exists from whose existence this obstinate contradiction is absent. It underlies our conception, not only of things as a whole, but of each single thing also-and not only of these in themselves, but of these as apprehended by us. How, then, can it be argued that the universal cause or principle is not to be thought of as God, in the theist's sense of the word, because it is as difficult to think of such a God's existence as to think of that of a half-penny or of a London-and-Brighton train? If we could understand these modes of the universal Principle any better than we can understand the Principle itself, there might then be something in Spencer's singular doctrine; but he expressly tells us that we cannot. modes, including our own personalities, with regard to all of which we are obliged to form propositions,

are no less unthinkable than the Principle with regard to which we are to form none.

Since then, we are obliged by our constitution as human beings to form conceptions of, and assent to propositions respecting, these modes or manifestations of a Principle itself unknown, though these conceptions and propositions ultimately resolve themselves into others, the parts and terms of which thought can no longer unite, this is all that theistic religion asks. No theologian or theist has ever maintained that God, though He revealed Himself twenty times over in twenty different Bibles, could ever be known by man as what God actually is. When Augustine was walking by the sea meditating on the divine Nature, he noticed a child, who, armed with a little vessel, was emptying sea-water into a hollow which it had scooped out in the sand. The saint asked it what it was trying to do. "I want," said the child, "to get the sea into that hollow." "That, my little man," said the saint, "you will be able to do never." "I shall do it," said the child, "sooner than thou, Augustine, wilt be able to understand the immeasurable mystery of God." In this story we see what the word God means for theism. In so far as it comprises any qualities individually thinkable, the theistic conception of God is not, and does not profess to be, a conception of the Absolute and Infinite as the Absolute and Infinite are. Christ himself, though proclaimed as the Word by which the worlds were made, is not represented even in John's Gospel as

manifesting to men any knowledge of what the cosmic process was. The theistic conception of God, even according to Christian thinkers, is merely a conception of certain associated modes or manifestations of a Power, whose entire nature can never be made manifest. It is merely a conception precisely similar in kind to the conceptions formed by us of those other modes of the Unknowable, such as matter, motion, and in especial our own personalities, with which the thought of Spencer, and all other thought deals, and the essential contents of which, according to Spencer's own analysis, resolve themselves into the same intellectual contradictions as those which confront us when, taking the qualities of God, we invite the intellect to contemplate them as coexistent in the same Being. It is impossible for it to represent to itself an absolute God as purposing. It is equally impossible for it—so far as ultimate implications are concerned—to represent to itself a train moving or a Bath bun sunning itself in a shop window. If, therefore, we are justified by the laws of the human intellect in asserting that the latter are real in a true practical sense—in the only sense in which anything can possibly be real for ourselves—there can be no à priori reason of any kind which can hinder us from claiming a similar reality for the former.

Accordingly, since, as we have seen already, we are forced by the very principles of deterministic science itself to infer that the universal Cause or Essence of things must from all time have oper-

ated with deliberate purpose, or exhibited purpose to ourselves as the knowable mode of its operations, all theoretical objections by which an opposite train of reasoning might nullify this conclusion are not, indeed, theoretically annihilated, but are robbed of all practical force; for we have to disregard them in order to believe in anything.

And now we may pass on to the point which here specially concerns us—namely, the difficulty of believing that an absolute and purposive Power is good, when the same reasoning that shows that such a Power must exist exhibits it also as the originator and systematic permitter of evil. We come back to the difficulty; and by this time we have an answer to it. The answer is that the intellect is incompetent to solve the contradiction, but is nevertheless competent, with its eyes open, to disregard it. All solutions of it are hopeless. They are shams, subterfuges, the nostrums of theological quacks; but the intellect, in disregarding it, though it has no solution to offer, is merely doing what it must do, and what it habitually does, as the necessary condition of assenting to the reality of anything at all.

And now let us return for a moment to certain words of Spencer's, to which attention was called just now, with a view to future comment on them; and we shall see that even he, while repudiating the conclusion just reached by us, was himself, at that very time, thinking and feeling in accordance with it. Let Dean Mansel, he said, believe in an

absolute, a personal, and an all-good God, if he pleases. Let him hold himself bound to believe what his intellect shows him to be unthinkable. "I for one," said Spencer, "admit no such vice in the constitution of things." What is this but an admission of the very fact that he has been just denying? We must not allow ourselves to say that the universal Principle is good; and yet "he for one" will not "admit the idea" that there can be any "vice" in it. This is obviously an assertion that the Unknowable is known not to be vicious. Nor does this statement stand alone. Spencer says, in another passage to which reference has been made already, "It is not for nothing that a man has in him sympathies with some principles and repugnance to others. . . . When the Unknown Cause produces in a man a certain belief, he is thereby authorized to profess and act on this belief." What is this but to say that the Unknowable is known to have purpose? Yet again, he says in a third place, that when we declare the Unknowable not to possess personality, we are not declaring that it is lower than a person, but rather that it must be "something higher"; and though anything higher than personality is, he adds, "totally inconceivable; this is not a reason for questioning its existence, but rather the reverse." What is this but an assertion of knowledge on our part that in the character of the Unknowable, however it transcends personality, all the qualities of personality are subsumed; while our utter inability to think clearly this quasitheological proposition is a reason for believing rather than a reason for doubting it?

Here we have the very fact for which we are ourselves contending, admitted unconsciously, and with a kind of parenthetical candor, by the very thinker who has been foremost in elaborating a systematic denial of it. We have, however, ourselves done much better than he. The admissions which, as made by him, have no logical justification. we have affiliated to his own principles, and invested with a coherent form. We have shown. with regard to the so-called Unknowable Cause. that personality and purpose must, according to the principles of deterministic science, be as truly modes of its existence as any of the phenomena purposed by it, though the infinity of purposes, which must all have been its purposes simultaneously, will have been enough to show that its personality must be more than ours. By means of two orders of evidence, both of which escape Spencer altogether—the evidence of the religious passion and the evidence of the social fertility of an assent to the fundamentals of theism—we have shown that there are definite grounds for holding that the Universal Principle has not only no "radical vice" in it, but is also supremely good; and, finally, we have shown, with the aid of Spencer himself, that the evidence to the contrary, arising from the existence of evil, though at first sight it seems overwhelming, may be reasonably set aside.

So far, therefore, as the character of the theistic

God is concerned, we have, without travelling beyond the limits of strict science, or the principles expressly laid down by two of its most famous exponents, nullified one by one the purely logical difficulties which such science seems to place in the way of theistic belief.

But though we may thus be said to have reopened an intellectual road to God, if only man be a being morally qualified to take it, the character of man still remains to be dealt with. Seeing how inseparable, so far as science can inform us his life and mind are from his physical organism, and how manifestly inseparable his organism is from the universe, can we reasonably justify ourselves in assenting to the required belief that man has any independent being at all, and is not a mere eddy or vortex in the thought of the divine Mind? This question we will consider in the following chapter.

IV

DIFFICULTIES INHERENT IN THE CONCEPTION OF A FREE HUMAN PERSONALITY, AND THEIR PRACTICAL SOLUTION

THE idea that the individual mind is merely a part of the universal mind, human personality having thus no real existence, is not only an idea which science appears to thrust on us; it is also an idea which may, as the case of Buddhism shows us, be developed, with apparent consistency, into a practical moral system. Thus developed, it leads to the general doctrine that the false sense of individuality is the root of all human evil, and that the way to escape from evil is to rid ourselves of this perverse illusion—firstly, by mortification and extinction of all selfish desire; secondly, by the fusion, through universal love and sympathy, of the will of the individual with the will of all other men. this has been perfectly accomplished, the personality of the individual has disappeared, and physical death ushers him into the blessedness of everlasting rest.

Now here we may observe in passing, that, as applied to practical life, Buddhism is essentially

a religion of pure negation. All advances in civilization, art, society, are necessarily condemned by it as so many fresh fetters, binding us to an existence from which it should be our sole anxiety to escape. It has never been acted on generally in its purest and strictest form; and such civilizations as have been associated with it, have flourished in defiance of its theories. But the fact which concerns us now is not that in its purest form it has never been able to influence more than an elect minority; but that it is not, even as accepted by this minority, the coherent system which it pretends to be. As a doctrine that the individual mind is a part of the mind universal, it bears a superficial resemblance to the quasi-pantheism of modern agnostic science; but the resemblance is superficial only. While resembling such science in denying that the mind of man can be immortal, it affirms it to be immortal in the sense that it indefinitely survives the body, its connection with which is left an unnoticed mystery; and, further, it assumes that so long as the phantom of personality lasts, this fragment of the mind universal has a private will of its own, by which in each fresh incarnation it determines the use of its faculties, and hastens or delays the life that shall make it ripe for Nirvana. Apart from the doctrine of transmigration, and the existence of an individual will, which may or may not be used so as to bring about its own extinction, Buddhism in its pure form would have neither meaning or efficacy. It would merely be a doctrine

that death is a good thing, because it puts an end to a life which has more sorrows than joys in it, and which each of us is obliged to live as his own nature makes him.

Thus even that great religion which has hastily been regarded by many people as showing that a religion may develop itself from the data of agnostic science, has as its basis two, at all events, of the specific doctrines of theism—the doctrine that the mind does not die with the body, and the doctrine which now specially concerns us, that the will of this mind is free.

For Buddhism, which has no science, physiological, psychological, or other, the doctrine of freedom presented no intellectual difficulties. For scientific thought and even for introspective philosophy, its difficulties are greater, or at all events they are nearer to ourselves, than those of the doctrine that a God who causes evil is good.

When science exhibits to us the manner in which the human being originates, its cellular up-building in the womb, its emergence as an unconscious baby, the dawn of personal consciousness as its brain gradually matures, the sprouting of character before it knows what character is—of the sweet or the savage temper, of the healthy or depraved sexuality, of the orderly or criminal instincts, of the powerful or helpless intellect—all astir already, and doomed to respond hereafter to the stimuli of external circumstances; when we follow the history of such a being farther, and realize that its mental and moral

life, so far as observation can inform us, remains as inseparable from the working, conscious or subconscious, of its organism, as the steam-power of an engine is from the particles of its expanding steam, while the organism is as inseparable from its environment as a ship is from the waves it floats on; that an accident may reduce an honest man to a kleptomaniac, or may even shake the same self into several, so that several different personalities may alternate within the same skull: when we realize that in the life-process from a man's birth to his death, everything exists in relation, nothing exists absolutely; when we realize all this, we may well be tempted to think that the conception of some absolute will-power, coming from we know not whence, introducing itself we know not when, and interfering we know not how, with this vital ferment whose processes leave no room for it, and in each of their minutest details are explicable without its aid, is nothing more than a dream surviving from man's earliest days, when the pouring of every brook seemed the work of some separate spirit.

For science, in short, it is impossible to construct any kind of theory by means of which human life, considered as a part of the universe, can be credited with any element of freedom — a voluntas avolsa fatis — without a repudiation of the principles on which all science is founded; and the impossibility of the feat has never been more clearly illustrated than it has been by the recent at-

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tempts of a certain school of scientists to accomplish it.

Of this school the best known representative is Sir Oliver Lodge, who, full of a righteous contempt for those who do not agree with him, has set himself to reconcile the doctrine that "all existence is one," that the organic and the inorganic, the mental and the physical are continuous, and that "man is a part of nature," with the doctrine that each individual is master of his own movements. It will not be out of place here to consider briefly how he argues.

Sir Oliver Lodge is one of those who believe in the reality of telepathy, and other so-called spiritualistic phenomena; and these he regards as offering positive proof that the human intelligence can be operative apart and at a distance from the brain. Since, then, in this case intelligence and the brain must be separable, and since yet at the same time all existence is one, and brain and intelligence must be parts of the same universe, Sir Oliver's problem is how to conceive of intelligence, so that it and the brain may possess some common denominator.

If we take his solution of it as actually formulated by himself, it is difficult to attach to it any meaning at all, for it takes the form of two contradictory theories, both of which he enunciates with equal emphasis. One is the theory of "spiritual existence before all worlds." The other the theory of "an evolutionary distinction between

matter and mind." According to the first, an indefinite number of intelligences must have existed, as such, before material evolution began, and condescended to enter our brains as soon as our brains were ready for them. According to the second, the process of material evolution came first, and intelligence is blown from the brain, like a soap-bubble from the bowl of a tobacco-pipe, to which it adheres normally, but is capable of floating away from it. Sir Oliver seems unaware that these two theories are in conflict: but it is evidently the latter on which he really relies, for he has definitely asserted not only that life arises from matter, but also that its artificial production is within the limits of scientific probability.

Both theories, however, have one point of resemblance, which does something to explain their author's vacillation between them, and leads us to the idea which is really at the root of his entire speculation. This is the idea that the basis of all existence is, for science, some species of ether; and that out of it the material universe, our brains included, has been evolved; but that besides this trifling product of which Sir Oliver speaks with scorn, the ether, which possesses any number of "ethereal possibilities," is capable of being formed into pure immaterial intelligences, which are either distilled out of matter, as it evolves itself into material brains, or are else absorbed by the brains ready-made from without.

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Let us, then, take this theory, and see how Sir Oliver uses it. He begins by dividing matter, as we know it, into two sections - matter which is moved by nothing but force or energy, and matter which is moved by indwelling immaterial mind. The former, he says, "is impelled only by being pushed from behind," like a "pushed animal," Naturally in this region there can be no such thing as freedom: but when we come to an "organism animated by mind," we have, he says, "a totally different case." Here the object is moved, not by a push from behind, "but by a perception (within the object itself) of something ahead of it"; as we see in the case "of the intangible influence of hunger," which causes the organism to move itself in search of food. Sir Oliver Lodge at this point is apparently about to inform us that here we find ourselves landed in the privileged sphere of freedom; but it suddenly occurs to him that a nail moving towards a magnet is just as much determined by "something ahead of it" as an "organism animated by mind" is when it moves in the direction of its dinner. He invites us, therefore, in our search for freedom, to take a step farther yet. We must look for it, he says, not in the mere principle of mind, which may leave us in the condition of "electro-magnetic automata." We must look for it in mind when it becomes "conscious (in man). able to look before and after, learning from the past to strive strenuously towards the future. We still obey the strongest motive doubtless, but there

is something in ourselves that makes it a motive and regulates its strength."

Sir Oliver would have simplified his argument had he come to this point at once. What differentiates man from the electro-magnetic automata, is not that he can create the motives to which his activities are due, but that he can, without predetermining cause, intensify, or forbear to intensify, this motive or that, so that motives otherwise weak shall be made by his act invincible. Now in telling us this, he is doing nothing to solve the difficulty. He is merely restating it in its old classical form the form in which it was stated before science began. The difficulty is precisely this: How is it possible to conceive that, with no prior motive to determine him, a man shall choose to intensify this motive rather than that? It is a difficulty which can be expressed as a mental difficulty, or a material. In its mental form, Sir Oliver leaves it untouched. Let us see if he has done anything to solve it. as stated in terms of matter.

The means by which he professes to have accomplished this important feat consists, as we have seen already, of the hypothesis of an immaterial ether, which condenses itself into matter on the one hand, as steam condenses itself into water; and ultimately, on the other hand, forms itself into minds or spirits, which "differentiate themselves through evolution from the matter," in which they have apparently been imprisoned. If the spirits were not thus differentiated—if they

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remained mere functions of brain, spirits would have no freedom. Their actions would be as necessary as those of all matter are admitted to be. They become free in the process of being sublimated into pure ether. Empirically, then, we have a dualism of two universes, which according to Sir Oliver Lodge obey different sets of laws, freedom being possible in the one, and not possible in the other. Such is the theory, and here we come to our point. Is the distinction thus drawn between the two universes tenable? And if it is if the laws of the two are different—how do the laws of ether and the laws of matter differ? We shall find, when we consider these two questions carefully, that the entire theory evaporates like an empty dream.

In the first place, the distinction drawn between matter and ether is, according to Sir Oliver's own principles, manifestly no more than verbal. Sir Oliver informs the world that matter is capable of being created. He means by this startling announcement that atoms at the present moment are in all probability being formed out of groups of etheric or electric corpuscles. But to call the atoms matter, and their constituent parts not-matter, is to state no new truth; it is merely to misuse language.

That such is the case is shown with curious clearness by a Cambridge scientist, Mr. Whetham, who is here a disciple of Sir Oliver's. Mr. Whetham declares with much philosophical emphasis,

that ether is not material, but sub-material; that it consists not of matter, but of the "ghosts" of matter; and that as soon as we enter this sub-material region, we leave the laws of material mechanics behind us, and find ourselves "standing on a totally different plane." Now, in a certain superficial sense, this may no doubt be true. We might say a similar thing with regard to water and steam; for water and steam in many respects act differently. No one pretends, however, that they are not both material; for they both of them obviously belong to the same causal system. Is it pretended that matter and ether do not?

The answer to this question is given by Mr. Whetham himself, who elaborately discusses the question of how the sub-material corpuscles so group themselves as to form material atoms. He describes a series of purely material experiments, which go to show by analogy how this grouping takes place; the assumption and the conclusion being that the sub-material particles behave with the same rigid, mathematical, and calculable uniformity as that which prevails in the world of ordinary matter. What, then, is the meaning of this quasi-scientific distinction between the material world and the ethereal, to which Sir Oliver Lodge assigns so solemn an importance? Except as a misleading way of stating the simple fact that the etheric corpuscles, when they group themselves so as to form atoms, acquire new qualities as atoms do when they group themselves so as to form

molecules, the sole office of this distinction is to raise a little cloud of mysticism, in which the difficulty of freedom may be not solved, but hidden. The fact remains that, however different in detail the behavior of etheric and atomic particles may be, they both belong to a single and continuous causal system, and there is just as little room for freedom in one set of phenomena as in the other.¹

The only way in which Sir Oliver could logically save the situation would be to abandon his doctrine that "all existence is one," and that the entire man

1 For Mr. Whetham's arguments, see The Recent Development of Physical Science, by W. C. D. Whetham, F.R.S., Fellow of Trinity College, Cambridge; chap. vii., "Atoms and Æther." Sir Oliver Lodge's views, as above referred to, are to be found in a variety of his public utterances, but more especially in his article on "Mind and Matter," Hibbert Journal, January, 1905. In a previous article in the same Journal, on "Sin," he throws a curious light on his own conception of ether, which he seems to regard as the substance of the universal God. God is, according to him, so conditioned by the determinism of His own substance, that He is constantly thwarted in doing the good He would do, and is constantly "wrath" with Himself on account of the evil He has done. Men, says Sir Oliver, are like "phagocytes" in God's veins, whose business is to destroy the poisons lurking in the divine system. A word may be added with regard to the phenomena of "Spiritualism." In these, even if we accept them as Sir Oliver Lodge does, there is nothing to indicate the existence of an order of phenomena in any way free from the determinism of causes generally. On the contrary, passivity and absence of will is what they all sug-They resemble the etheric images which, according to Lucretius, were always being given off by everything, and drifting everywhere through the air, causing vision, when they struck the eyeballs, and dreams when they entered the sleeping brain.

is an integral "part of nature"; boldly affirming that the mind-ether is unconnected with matter altogether, that it belongs to a world in which there is no uniform causation, and that matter and mind can never be differentiated by evolution, because from the beginning they have been utterly different things. Only in this case the conception of mind-ether becomes a mere cumbersome superfluity. He might as well content himself at once with the theologian's mind or soul. If he did this, he might consistently postulate freedom; but he would do so by refraining from his attempts to discover a scientific explanation of it; and he should abandon the vocabulary of science as completely as he abandoned its principles.

Desperate attempts such as this of Sir Oliver Lodge to find in the scientific universe a thinkable place for freedom, do but illustrate afresh, if fresh illustration be needed, that to accomplish the feat in a scientific sense is impossible. How, then, are we to deal with it?

We can deal with it in one way only; and that is by means of the argument which was elaborated in our last chapter. We must recognize that the difficulty involved in our belief in freedom is merely another example of that insoluble contradiction which, as we have seen, underlies our conceptions of everything. Spencer, in dealing with these contradictions, makes no mention of freedom, not himself believing in it; but of all contradictory conceptions, it is perhaps the most curious. The

difficulty involved in it is one which, as commonly apprehended, presents itself in three forms—the theological, the psychological, and the physical. For theology, it resolves itself into the question of how man can be free to do or not to do any particular thing, when his choice has from all eternity been forewritten in the will and the knowledge of God. For psychology, it resolves itself into the question of how any act can be free, when no volition is possible apart from the determinism of motive; the theory that freedom resides in the intensification of this motive or that, being merely the difficulty restated in slightly different terms. For physical science, it resolves itself into the question of how the will, which is inseparable from the action of the physical organism, can interfere with the process of which it is itself a product, any more than the wheel of a watch can interfere with its own rotation.

It presents itself, however, in a fourth form also, which is far more significant than these, though not so commonly dwelt upon. This is a difficulty which would exist unlessened and unaltered, if all the others were altogether removed. It consists not of the fact that freedom is apparently rendered impossible by the various conditions to which life is found to be subjected; but of the fact that the very principle whose possibility we desire to vindicate is a something which, when analyzed, eludes thought altogether, separating itself into two ideas of which each destroys the other.

Let me illustrate this by a very simple example. A man, we will say, is halting between two courses—the definite undertaking of some arduous and active duty, and a self-surrender to the magic of some illicit passion. Strong motives bias him in favor of both. They are lying in two scales, making the balance sway, and the man is a Brennus who must cast his sword into one of them. By putting the case thus, we are, as I have said before, merely duplicating the problem of choice and motive; for let him cast his sword into the right scale or the left, the old question still remains unanswered why he did the one thing instead of doing the other.

To this question only two answers are possible. He must have done what he did, either for some cause, or for none. Now the literature dealing with experiences such as this, is enormous; and in every case where a moral choice has been described, some specific cause has been definitely, and even ostentatiously, assigned to it. Let us begin, then, by supposing that he acts from some definite motive.

If the man whom we are imagining were a Christian, and decided in favor of duty, he would say that he was motived to do so by a memory of some words of Christ's, or of his own early teachers, which suddenly came back to him. On the other hand, if we suppose him to have decided in favor of his romance, he would explain the fact by reference to the image of the beloved woman,

which appealed to his romantic instincts in a way that there was no resisting. Now let us suppose that, the man having made his choice, we were able to recall the moment, and put him through the crisis again, having meanwhile made some alteration in his past life or his temperament. Let us suppose that, he having on the first occasion resisted the temptation to romance in consequence of some thought of Christ, we have now taken away from him all knowledge of Christianity. The cause of his resistance will be gone; he will now resist no longer. Or let us suppose that, he having yielded to romance on the first occasion, in obedience to the call of a naturally amative temperament, we have now made his temperament such that women have small attraction for him. In this case we shall have removed the cause that had made him yield; and the woman being no temptation, he will follow the call of duty.

If, however, we realize what this system of causation implies, we shall see that the man, let him make what choice he may, is nothing more than the puppet of his tissues and his previous training. He could have made one choice only, and that is the choice he made. In other words, it was made not by, but for, him; and possesses, so far as he is concerned, no moral value at all.

Let us, then, shift our ground. Let us abandon the causal theory and adopt its only alternative the theory that when the sword is cast into the righthand scale or into the left, there is nothing in the

circumstances, the education, or the existing idiosyncrasies of the man, which compels him to cast it into one scale, and refrain from casting it into the other. Let us see what aspect his act of choice will wear in this case. If the man yields to his passion, and the woman asks him Why? - expecting to hear that his vehement love for herself was what finally overmastered the attractions of active duty, he will be obliged to tell her that his love for her had nothing to do with the matter. It need hardly be said that the lady will not be much gratified, and will probably tell him that in this case he had better have stuck to his duty. On the other hand, if he resists his passion, and his Christian friends ask Why? — expecting to be edified by hearing that he did so for the love of Christ, or at all events from a love of goodness which a Christian education had implanted in him, they will be even less pleased than the lady, when he tells them that his final decision had nothing to do with Christ or with goodness either, but, though acting as it did on his motives, was in itself motiveless. In that case they will say to him, "Though you happen to have acted like a Christian, it was a mere toss-up that you did so. There is nothing to show that to-morrow you may not do just the opposite; and fortuitous morality such as this is not morality at all." And, obviously, this criticism will be true. The result, then, that we reach from considering the alternative conceptions of willthe conceptions of it as determined, and as not

determined by motive—is this, that moral will or choice depends altogether on its motive, and yet its dependence on motive reduces moral choice to a nullity.

Thus the difficulty involved in the assertion of the reality of moral freedom, inheres in our conception of the thing freedom itself, before we have begun to inquire into its compatibility with actual facts; for let the facts be what they may, the difficulty will be still the same. An act wholly the result of causation is an act morally meaningless. An act wholly uncaused is both morally meaningless and impossible. Indeed, were we here concerned with an abstract question merely, and were considering the human intelligence as detached non-human spectators, we should certainly reject the supposition that human beings could ever imagine such a thing as moral freedom existing, just as we should the supposition that they could take one and one for three. But when we consider human beings as they actually are—as not mere speculative intellects, but as acting and judging creatures—we find that there is no conception which forms itself in their minds more instinctively, and, when formed, is for practical purposes more vivid and operative, than this impossible and intellectually self-stultifying conception of moral freedom. That such is the case is an intellectual paradox; and it becomes more and more paradoxical the more closely we consider it. For the conception of moral freedom does not lie

in our minds like an unimportant sum done wrongly, whose wrongness we fail to detect because we have no occasion to examine it. In all its impossible details it forms a practical premise, which is implied in men's judgment and conduct every hour and every moment of their lives, and which only escapes being rejected as abject nonsense because human nature insists on assimilating it as a fundamental truth.

That this is so, we have seen in our Second Book, where the whole matter was set forth in detail. Three-quarters of our life is made up of the judgments which we form of one another, and of the judgments which we each of us suppose that others form of us. All these judgments are founded on the pre-supposition of freedom; and when this pre-supposition is suppressed—as it no doubt sometimes is—we have to do with cases which, even if frequent, are pathological. Every time we are grateful to a man because he has done us a kindness, we are asserting that he was kind when he might just as easily have been callous. Every time we forgive a man for having done us an injury, we are asserting that he was cruel when he might just as well have been kind. Every time we honor any public character for heroism in war. or for disinterested sincerity in politics, we are asserting that he did for his country what he was not compelled to do. And yet when we turn from the synthesis effected by human nature in action to the dilapidating analysis so inevitably effected

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by the intellect, this conception of freedom, of non-compulsion—this moral light of life—becomes two atomic ideas, each morally meaningless, which no force of the intellect can induce to coalesce into a molecule.

In spite, then, of the witness to its validity which is afforded by its practical consequences, we might still be driven into regarding the conception of freedom as illusory if the difficulties involved in it were characteristic of this conception only. But it is not. If it is peculiar in any way, it is peculiar only for the clearness with which it stands out as a type of a difficulty that meets us everywhere. If the conception of freedom eludes and baffles the intellect, so in their last analysis do our conceptions of everything. As Spencer has shown, we cannot, without self-contradiction, conceive space, or matter, or motion, or causation, or our own conscious experience. Our consciousness is always a consciousness of the present moment; but the present moment is an ever-disappearing point, which has gone before we can name it—which holds all, and yet is nothing. The movement of matter is a movement from place to place through what is no place, and from rest to movement it is a change which, compared with rest, is infinite. Matter has three dimensions, yet resolves itself into points with none. Nothing can be thought of as not having a cause; yet all causes end at last in an Absolute which can cause nothing; and if we look on this Absolute as an absolute yet personal God, God, as

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Dean Mansel shows us, is all the unthinkables in one.

The difficulty, then, of believing in moral freedom, is neither more nor less than the difficulty already discussed by us, of believing in God's goodness when we consider the existence of evil: and the difficulty of believing in this is neither more nor less than the difficulty which one part of mannamely, his pure reason—encounters, when man as a whole is compelled to believe anything. If, therefore, in spite of the contradictions involved in it, we may reasonably believe, as we have seen we may, in the absolute goodness of God, we are, so far as any a priori difficulties are concerned. licensed to believe in man's moral freedom also. The belief that a plurality of uncaused wills or causes can co-exist with a Cause which is the first cause of everything, is not only no more unthinkable than the belief that a First Cause which causes evil is good: it is no more unthinkable than the belief that there can be a first cause at all.

And here we may recall what was said in a previous chapter, that if once the existence of human freedom is admitted, the belief in immortality follows as a natural consequence, or at all events calls for no separate vindication: for the will can only be free if it is in some sense independent of the body, and if it is independent of the body, there is nothing to suggest that it need die with it. Thus the three beliefs which make up natural theism, in point of difficulty stand and fall

together—the goodness of the First Cause, the causal independence of the human will, and the persistence of the human personality, of which will is the essential element. Further, the difficulty which the intellect encounters when it sets itself to assert these, is no greater, and indeed is no other, than the difficulty which it has already surmounted in asserting its own existence, the existence of other human intellects, and the existence of the universe in general.

This is the case so far as the intellect itself is concerned, or the pure reason as one part of the concrete man. The concrete man, however, is, let me say once more, not made up of intellect or pure reason only; and when we consider man as he is in actual life, we shall see that these two sets of beliefs—the theistic beliefs, and the others—are, in one important respect, related to him in different ways.

The difference between them is as follows. In the absence of the other beliefs, man could not exist at all. They are thrust on him by his senses, his instincts, and his experiences in acquiring food. To deny them would reduce him to idiocy, which would deprive him of the means of feeding himself. In short, without these beliefs he would be wholly helpless, and would die. But the conscious beliefs of theism stand on another footing. Without any reference to these, men are perfectly capable of supporting themselves, just as the other animals are. Like the gregarious animals, they

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are capable of forming themselves into societies; and in virtue of their superior brain-power, and more especially of the faculty of speech, they are capable of pushing their social progress farther than is possible for animals less amply endowed. The simple sense-pleasures, moreover, the simple family instincts, the exhilaration of conscious health, the excitements of war and rivalry—these also men may enjoy, no less than the higher animals, without having more religion than ants, or bees, or beavers.

Religious beliefs, then, have not for human nature the invincible necessity possessed by those just referred to—the beliefs, for example, in matter, cause, and motion, in the absence of which no life would be practicable. They are pressed on our acceptance only by elements in human nature that come to the surface gradually—the higher forms of the religious passion, the higher intellectual propensities which reach out towards truth for its own sake, and that entire system of moral and emotional æsthetics which is the inner substance of civilization; but with these, as we have seen already, the theistic beliefs are so associated that the former could never flourish and fulfil themselves apart from an assent to the latter.

The practical question is, then, what view are we, as critics of our own nature and our own history, to take of this movement which we instinctively call upward, and which unites a spontaneous appeal to the Principle or Heart of all things, with the orderly development of faculties

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otherwise suppressed and wasted. Are we to say that it stands for a delusion of our own minds that it has no relation to anything outside itself that it is a false or morbid growth—that it has no objective value? Or are we to reaffirm the value which our nature instinctively attributes to it? So far as the mere intellect, as a part of our natures, is concerned, we are free to take the former view, if we please; but if our nature in its integrity insists, as it does insist, on taking the latter, the result will be then as follows. Just as we must, in order to live in societies, recognize social organization as an advance upon social anarchy; and just as we must, in order to live at all, recognize the existence of matter, motion, and cause, we ourselves being parts of the material universe, and our progress as gregarious animals being part of the cosmic process; so shall we recognize in the development of the religious passion, and the gradual flowering out of the higher forms of civilization, merely a continuation of the process whose validity we have already accepted; and the one will be as truly a part of the cosmic process as the other. Such being the case, then, the fact that, in order to live at all, we have been obliged to accept from the first as practically valid and indubitable, conceptions of cause, matter, and motion, which, when analyzed, contradict themselves, will already have broken down, though nothing can solve, the difficulty in those other conceptions—the conception of the goodness of the almighty Cause of all things, and the con-

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ception of the freedom of our own dependent selves—which, as we have seen, are as essential to the continuance of our progress, as the conceptions of matter, motion, and cause are to the first beginnings of it.

Does this argument seem to the reader a mere argument in the air? Does it leave him cold? Does it carry with it no conviction? If it does not convince him immediately, let him not think the worse of it. True argument, in such a case as the present, can never do its work suddenly. It is like an embrocation which the patient must rub in for himself. Religious belief dies slowly under argument. It revives itself no less slowly. There is, however, more to add, which will help to give actuality to what has been said already.

V

BELIEF UNDER SCIENTIFIC COMPULSION

Let us suppose that some man, much attached to his wife, learns that she has, while away from him, lost her life in a shipwreck; and that subsequently a stranger discovers traces of her which indicate that she is still alive. The stranger communicates these evidences to the husband; and if they appear to be trustworthy, the husband's hopes will rise. It will, however, have been no part of the stranger's business to color the facts brought forward by him with any emotion of his own. Indeed, the colder and more prosaic he is in dealing with the various details, the greater is the confidence which the husband is likely to put in him. The same is the case with arguments relating to religious belief, such as those which have been brought forward in the present volume. They do not aim, and it is not their function to aim, at creating in the reader any religious emotion, any more than it would be the business of our stranger to create in the husband any love for his lost wife, or any pleasure at the thought of recovering her. The emotion must be left to take care of itself, and may indeed be safely trusted to do so.

If we take religion in its deepest and most general sense, we shall find that what it suffers from under existing conditions, is not any lowering of vitality in the religious impulses as such, but an intellectual difficulty in believing that they possess any corresponding object. So long as the existence of such an object is incredible, the emotion relapses on itself, and is necessarily set aside as a delusion, Christianity, or any other definite creed being a delusion within a delusion. But once let the intellectual difficulties, which inhibit belief in the object of religion, be done away with, and all the energies and faculties which have resulted in religion previously, will inevitably reassert themselves with all their old vitality, whether they ultimately express themselves in terms of any existing creed or no. The general disease is intellectual; it has nothing to do with the emotions. The required remedy is intellectual also

The line of argument, however, pursued in the present volume is by no means so purely negative, or so purely permissive, in its results, as those observations may perhaps seem to suggest. Though its results are only permissive as regards religious emotion, they are, as regards the fundamentals of religious belief, compulsory. In the first place, it does not merely show that the scientific interpretation of the universe is compatible with a belief in a purposive and intelligent First Cause. It shows that such an interpretation of the uni-

verse is logically incomplete until the existence of a purposive First Cause is affirmed. It reaches this result by a use of the very means which, according to current opinion, can lead only to its destruction. Whereas the official apologists of religion, in dealing with a thinker like Professor Haeckel for example, seek to discredit his atheistic conclusions by attacking with random futility the facts of the case as stated by him, our own argument has shown that his facts, and indeed his method of presenting them, only require a fuller and more rigid development, in order to lead us to one aspect, at all events, of the very Power which theology postulates, and which Professor Haeckel denies. Professor Haeckel's philosophy, in short, though he imagines it to be non-theistic, is a theology in the process of being hatched; and the entire policy of our religious apologists hitherto has not been to hatch the chicken, but if possible to destroy the egg. Or we may say that such a philosophy leads towards a theology, like a long bridge of which only the last arch is wanting; and that the clergy, instead of trying to construct this, devote the whole of their efforts to pulling the others down.

Science, then, in proportion as it is completely rationalized, not merely permits, but actually compels the reason to recognize a purposive Mind as the First Cause of the universe, thus completely revolutionizing the atheistic or agnostic conclusion to which it seemed to lead, when its implications were insufficiently realized; and it is difficult to

exaggerate the profound change in opinion which must gradually take place when the recognition of this fact becomes general. The mere recognition, however, of a purposive cosmic Mind, though it constitutes a rudimentary theology, is not itself a religion. In order to become a religion it must be supplemented by the two other beliefs, that the cosmic Mind is good, and that man is a free agent. Both these beliefs we have seen to be beset by difficulties which are for the intellect insoluble, and must be frankly accepted as such. By attempting to solve them we merely make ourselves ludicrous. But though we cannot solve or even lessen them by any exercise of the pure reason, we have the highest warrant in pure reason itself, for disregarding them, if the practical reason gives us grounds for doing so; and the practical reason, as we have seen, is in this matter imperative. It coerces us partly by means of the religious impulse which is ingrained in us; but partly also by means of the common-sense, the energies, the culture, and the intellectual shrewdness, which we possess as men who are civilized, and who have every intention of remaining so. We have seen all this already: but there is one aspect of the situation which yet remains to be elucidated.

We have followed Spencer in the analysis which, with the aid of an eminent theologian, he made of the contradictions in thought underlying the two sets of conceptions, religious and scientific, out of both, or out of one or other of which the human

mind has to build up its universe. We shall, if we consider his presentation of the case again, see that, in one respect, he has left it only half completed. He gives us Dean Mansel's analysis of the religious difficulties first; he then gives us his own analysis of the scientific, as though he were arranging them in two parallel columns, and showing that they were analogous in the sense of being equally insoluble. His mind seems not to have taken the farther step of realizing that the two sets of difficulties are not only analogous, but the same. But that such they are will be shown us by very little reflection—the same identical difficulty expressed in two different languages. A few examples will be sufficient to illustrate this.

How, the theologian asks, could the Absolute, the Infinite, the Perfect, the Unrelated God ever become a Cause? How could He have caused the universe? How, having been infinite and perfect from all eternity, could a universe ever become necessary to Him when it had not been necessary to Him always? Or how could He make anything be, which had not been always in Himself? This is precisely the same difficulty as that which science encounters when it traces back physical phenomena to their simpler and ever simpler causes. All evolution, says Spencer, according to the logic of science, starts from the simplicity of an absolutely homogeneous substance; but an absolutely homogeneous substance, he admits, would be absolutely stable. It could never change. It

would be always that which it had always been. Science more recent than Spencer's has dwelt more minutely than he did on the specific conception of ether as the primary basis and substance of all evolved phenomena. Spencer's difficulty is repeated by it in clearer and more delicate terms. The ether is conceived of as non-atomic and continuous, and is supposed to contract, or to knot itself into atoms, in such and such different places. But in a substance which is really continuous neither expansion nor contraction is thinkable; and a substance which is not only continuous, but also alike everywhere, cannot be thought of as behaving at any one point in a manner different from that in which it behaves everywhere. Men of science have, in order to escape this difficulty, been driven to suppose that the ether is subject to different strains. But unless the strains and the ether belong to two different universes, which science denies, the composition of the ether must vary with the strain to which it is locally subject; and in any case its condition, instead of being one and simple, must be as specifically complex as the universe to which its system of strains gave rise. It would, if this were not so, be simple ether still. Thus science in its search for an explanation of everything, is always pointing towards some unity which, when reached, can explain nothing; while theology, in the same search, always points to an absolute God, who ceases to be an explanation of anything the moment He is thought of as absolute.

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The identity of these two difficulties, the physical difficulty and the theological, is obvious from the details of both, at all events as a superficial fact; and that the identity is not superficial can be yet more clearly shown by a glance at certain details in the relations between physical science and metaphysics. When metaphysicians in pre-scientific days argued and quarrelled about the faculties of the human mind—about reason, understanding, intellect, ideas, sensation, sense-images, and so forth —they reached many conclusions, and quarrelled over many issues, which from age to age were roughly similar on the one hand, but which exhibited, on the other, all sorts of subordinate differences. There was no definite progress. There were no decisive demonstrations. No philosopher could be sure even that the terms used by him were understood by others in precisely his own sense. He could not be quite clear as to what his own sense was himself. There was and there could be no approach to exactness, because there was nothing external to which the definitions were referable. But when science began to unravel the secrets of the action of the brain—the brain, which for men like Hegel was nothing but so much pulp, or so much jeweller's wadding in which the mind was packed—it was seen that the mental faculties which the metaphysicians had loosely differentiated, actually possessed in the brain objective organs that corresponded to them; and the results of this discovery are illustrated in a very interesting way

by a passing remark of Professor Haeckel's on the sensational philosophy of Hume. "The work of 'pure reason' is accomplished," he says, "by the thought-centres, bringing about an association or combination of the impressions received by the sense-centres; and by the important distinction which we have thus learned to make, we avoid the error of the older sensualism, such as Hume's -namely, that all knowledge depends on senseaction alone." Now this error, to which Professor Haeckel alludes, had been attacked by metaphysicians on purely subjective grounds, long before the study of the brain by scientific methods was dreamed of. To the dictum that "there is nothing in the intellect that was not first in sense," Leibnitz had answered, "Nothing but the intellect itself." Here, then, in the physics of the brain we have an elaborate metaphysical argument, which could never be definitely thought, and still less could be definitely established, translated into a physical fact which might quite conceivably be photographed.

The result of these considerations, which, as the reader will see, flow from those set forth in our First Book, may be illustrated and summed up as follows. When the structure of the brain began to be accurately examined, it was found impossible to distinguish the nerves from the surrounding tissue, and so trace their structure, until an Italian scientist discovered that their inner substance was absorbent of salts of silver which stained them a deep black; and their intricate ramifications were in this way

at once revealed. What such stainings are to the brain-nerves when these last are examined under the microscope, the processes of matter as a whole are to the processes of mind. They are the same facts, general or particular, saturated with a certain something the stain of which makes them visible, investing what was once vague with definite form and movement.

When this truth is grasped, we shall see that science, as such, presents us with no problems which are in any way peculiar to itself. We shall see that, contrary to the idea hitherto prevalent among all parties, modern science, with its elaborate evolutionary monism, does not present us, in respect of theistic belief, with any difficulties which are new or in any exclusive sense scientific, or which did not vaguely inhere in all natural theology from the first. All that it has done directly has been to accentuate, to systematize, to externalize them—to put them before us in a form in which it is impossible for us to forget or to disregard them.

But though this is all that it has done with regard to these difficulties directly, it has affected them indirectly, in another and yet more important way. It has shown us that the difficulties inherent in religious belief do not stand by themselves; that they are no more exclusively religious than they are exclusively scientific, but are merely special examples of a difficulty much more general, which inheres in all constructive belief of any kind. This difficulty may be expressed by saying that man, as

he primarily confronts existence—his own and that of the universe—finds himself standing on an island, which is surrounded by a river of logical or intellectual contradictions; that every belief which will enable him to take any action at all, lies on the bank beyond; and that he must necessarily immerse himself in the water—he must necessarily traverse this Styx—in order to reach any one of them. His belief in his own existence, and in that of the material world, require that he should take the plunge, no less than his belief in God's goodness, and in his own freedom; and if this does not seem to be the case, the reason, which we have already indicated, may be stated once again.

The constructive beliefs which we may justifiably call the lower—those which are necessary for the existence of the gregarious human animal—provoke no contradiction: for to contradict them would be practical suicide. No one is tempted, for example, to deny the reality of motion, let the difficulties latent in the conception of it be, for the intellect, what they may. But religious beliefs are necessary for our higher existence only. We can, as intelligent animals, get on quite well without them. They can therefore be denied without immediate absurdity; and since it is an essential characteristic of them that they act as goads or irritants, they encounter for that very reason a certain amount of opposition. But the contradictions involved in them, on which the critical spirit fixes, are merely those which, taken in their lower connections, the human animal accepts without question, in order to think at all. If we suppose, for example, that what we call the acts of our own will, are really effects due ultimately to the action of the First Cause, we escape the contradiction incident to the supposition that our will is free; but we are escaping from one mode of the contradiction, not from the contradiction itself; for the conception of a First Cause, on which we subside with relief, is no less self-contradictory than the conception of freedom which we repudiate.

Thus, then, when we confront the general problem of existence, when we consider the various theories which it is possible to form with regard to it, and when we find that we are met by underlying contradictions everywhere, there are two courses open to us, between which we are compelled to One is to abstain deliberately from forming any theory at all, which might reasonably affiliate our lives to the universal order of things, because all such beliefs at starting involve a violation of reason. The other is to disregard this fact and form some belief of the required kind in spite of it. The first course is self-condemned, because, while affording us no escape from the difficulty which it aims at avoiding, it is simply an act of intellectual despair or fatuity, which reduces human existence to its bare, animal elements. If we do not adopt this course, we must necessarily adopt the other. We must form some theory, or assent to some system of beliefs, in accordance with which

man's higher life will be able to sustain and develop itself.

In other words, the concrete nature which we possess as active and progressive beings, stands over us with a drawn sword, saying Believe, or die. It says this first with regard to our life as animals; and without hesitation our intellect swallows the contradictions latent in the beliefs which an animal existence necessitates. Our concrete nature then repeats the injunction with regard to our farther development, saving to us. Believe, or stagnate. Unless, then, we are content to deny our own humanity, and accept the life of mere gregarious animals as enough for us, we are compelled to construct and assent to, some farther beliefs of some kind, which shall form the intellectual skeleton on which our mental civilization shall support itself. Only a limited number of such beliefs is possible; and all being encumbered with the same negative difficulty, our compulsory choice can be guided by one principle only. We must choose the beliefs which are most in consonance positively with our external environment on the one hand, and with our internal needs on the other.

To elucidate this fact has been the aim of the present volume; and the conclusions, in respect of it, to which our argument has conducted us, have been as follows. The only system of beliefs on which human civilization can sustain itself is a system of beliefs which, when brought into contact with the world of scientific knowledge, and when so

analyzed that its logical implications become explicit, emerges as the creed of theism—that is to say, a creed which attributes to the Cosmic Principle as a whole, mind, intelligence, purpose, feeling, and goodness, in a sense congruous to the sense in which we recognize these qualities in ourselves; which, in spite of our own dependence on the universal Cause, attributes to ourselves also a true causal personality; and which, in spite of our dependence on the body of which our mind seems the mere function, attributes to ourselves individual permanence also.

The truth of these conclusions is illustrated in a most remarkable way by two great religions of the East, which may at first sight seem to cast a doubt on it. To one of these—namely, Buddhism -reference has been made already. Though pure Buddhism expresses itself as a formal denial of God, two of the doctrines of theism-that the individual life has a will resident wholly in itself, and that the individual life does not die with the body—are essential parts, as we have seen, of the Buddhist system, which without them would be practically meaningless; while the formal denial of God, for which Buddhism is remarkable, is, in its mystical conception of Nirvana, which even Gautama would not define, merely an inarticulate affirmation of what it seems to deny. But more interesting still than Buddhism is the practical religion of the Japanese, as manifested by that nation in their heroic struggle with Russia. The Jap-

anese religion, as a principle of national life, is in many respects at present unintelligible to the Western mind; but Japanese writers have made it abundantly clear that it has its root in the idea, which is essentially non-Buddhistic, of the permanence of the individual life, not of its final extinction: and that with this idea are associated two others. one of which is locally patriotic, the other purely mythological, the Japanese nation generally, and the imperial house in particular, being regarded as the privileged progeny of certain of the heavenly bodies. When the Japanese as a nation shall have assimilated the science of the West, not only in its details, but in its full philosophic significance, these mythological elements must, it is obvious, be eliminated, as the legend of the six days' creation is being eliminated from popular Christianity; and what then we shall find remaining will be some conception of existence logically indistinguishable from the theism of the Western world.

The fact remains, however, that science, even when made one with philosophy and with natural theology, is nothing more than a purely intellectual system, whereas action, heroism, art, and religion as an active principle, result from man's nature as a whole, of which the intellect is no more than a part. But the emotional and energetic elements of man's nature being given, the intellect supplies them with the means of expressing and fulfilling themselves; and in proportion as the intellect develops itself under the severe and cosmopolitan dis-

cipline of science, it must gradually tend to make, among all civilized races, any conception of existence, other than the theistic, impossible.

Science will thus, in accordance with what I observed at the beginning of the present chapter, play a direct part in the stimulation of active religion, by forcing the waters of belief to flow in a given channel, and thus become capable, like a millstream, of doing active and definite work, instead of wasting themselves in impotent rivulets, or stagnating in a shallow flood. In particular, it will gradually render impossible that absurd and unstable attitude which, at the close of the last century was dignified by the name of Agnosticism. The real position of those who called themselves Agnostics was this. Science having, as they supposed, expelled God from nature, they practically looked on the change that was thus effected as comparable to man's loss of a sort of celestial schoolmaster, who had indeed managed his business for him, but in many ways was very objectionable: and the school-master being dead, they conceived of the human race as left in a free, even if in rather a forlorn condition, to construct for itself, in defiance of nature, a little private universe of its own, like a sort of Dotheboys Hall which has got rid of its Squeers, and whose orphans propose henceforward to educate and to board themselves. such Agnostics practically failed to realize what was in theory even for themselves a truism, that the precise train of reasoning which freed them from an in-

telligent God, reduced them to mere puppets of that nature which it was their enlightened programme to oppose. Man is either a free being, with an intelligent Deity as his counterpart, or else he and his fellows are a mere procession of marionettes, which strut, or jig, or laugh, or groan, or caper, according as their wires are pulled by forces admittedly less intelligent than themselves. In proportion as science becomes rationalized, and its conclusions more clearly understood, this latter conception of existence will become more and more practically intolerable, and our Agnostics will, whether they like the operation or no, be forced to accept the theism which is its only intellectual alternative.

Such an ultimate revolution in belief being, according to the arguments of the present volume, inevitable, it remains for us to consider briefly the ethos and the concrete forms with which belief, when thus re-liberated, is likely hereafter to associate itself.

VI

RELIGION AND RELIGIONS

ONE of the most cultivated and clear-sighted of the recent apologists of Christianity has observed that, in proportion as the scientific objections to religion are, either rationally or irrationally, allowed to sink into the background, a difficulty in the way of Christian belief is asserting itself more dangerous even than the objections which oppose themselves to religious belief of any kind. This difficulty consists, he says, in the tendency of the modern world, as soon as it wakes up from what he calls "the nightmare of materialism," to construct its religion de novo in a spirit of "extravagant eclecticism," instead of re-submitting itself to the "unique authority of Christ." In other words, what Christianity has most to dread in the future is the rivalry of other religions, rather than atheistic antagonism. "The patient," he says, "has got his head free from the grip of the dentist's chair; but with the freedom has come a rejection of all leadership."1

The above observations are most true; and

¹ See Religion and Science, by P. N. Wagget, M.A. Longmans, 1904.

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they form a fitting comment on the arguments of the present volume. These arguments do nothing whatever to suggest the special validity of the Christian or any other religious creed. They merely exhibit, as demanded both by the practical and the scientific reason, an assent to those general and fundamental beliefs, of which the Christian interpretation is but one among many competing variants; and to those who believe in Christianity, and to those who do not, it is desirable to point out two sets of considerations.

In the first place, those who believe in the Christian creed, and whose whole hopes for the future depend on its continued ascendency, should reflect that if, with the further development of thought, the scientific objections to religion as such are removed. and if religious belief in reviving tends, as it no doubt will, to clothe itself in a number of new and experimental forms, the Christian religion is merely returning to the position which it occupied originally when it conquered the Western world. The rise of Christianity was not a victory over atheism, or anything resembling the negations of modern science. It was a victory over other religions which it showed to be less valid than itself in interpreting and ministering to the moral needs of mankind. The very doctrine of the resurrection of Christ contained no generic novelty for many at all events of those to whom the event was first preached. For example, when the fame of Christ came to the ears of Herod, what at once suggested itself to him as the

most natural explanation of the matter was that the new prophet was the Baptist who had risen from the dead, and was, in his risen body, invested with miraculous powers. The one peculiarity, then, attaching to the doctrine of the Christians was, not that there had been a resurrection of a man, but that there had been a resurrection of the man Christ. And with all the doctrines preached by them the case was similar. They were not peculiar because they were miraculous, or attested by alleged miracles. Their peculiarity lay in the peculiar character of the appeal which they made, partly to the philosophical, but mainly to the moral nature of man. If Christ's teaching was the leaven, human nature was the meal; and it was only because the meal possessed certain natural qualities that the supernatural leaven produced the desired effect on Just, then, as Christianity only gained its ascendency in consequence of its meeting the demands of human nature in the past, so, it is obvious, its ascendency can only continue on condition that it continues to meet the demands of human nature in the future. In saying this, I am saying nothing more than all true Christians must necessarily believe themselves, and if they are firmly convinced that their religion, and none other, was specially revealed by God, they will prepare themselves with confidence to show the modern world, not that Christianity is better than no religion at all, but that it is better than any other religion which the modern world can devise.

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And now from the position of the Christians, let us turn to that of their opponents. The same conditions which will give renewed freedom to Christianity will give renewed freedom, as the writer just quoted anticipates, to any other form of religion which may plausibly hope to compete with it, and will arm the opponents of Christianity with a variety of new weapons. It is entirely beyond the scope of the present volume to debate which side is likely to have the advantage; but it will be desirable briefly to indicate the main differences of aspect which the situation will wear for those who view it from different standpoints.

If we assume it to be admitted by all those concerned that the human race is related to some intelligent Deity, the nature of its relation to this Deity may be conceived of in three ways. It may be conceived of as that of a son to a benevolent but offended Father; or as that of a brother or ally to a Power superior, but cognate to himself; or as that of a lover aspiring towards union with some mysterious beloved. And with each of these conceptions of man's relation to the Deity is associated a distinguishing moral attitude which corresponds to it. In the first case it is one, as theologians call it. of abjection. In approaching the Deity man is burdened with a sense of sin. He asks for love knowing that he deserves anger; and all life for him is a process of austere and quasi-penal discipline. In the second case the attitude is one not of

abjection but of self-reliance—of religious ambition rather than religious worship. Man, though conscious of many degrading frailties, looks on his errors as a skater's falls on ice, which require that he should pick himself up and think no more about them, rather than as sins to be washed out by sorrow. He aspires to emulate the Divine, instead of being abashed before it, to be its companion rather than its vassal, and to walk with the Perfect Mind, though haud passibus æquis. In the third case the attitude is that of a wooer rather than a friend or worshipper. It differs from the first in its boldness, and it differs from the second in its passion. It points to union with a Deity who is fundamentally the spirit of beauty, charm, delight, of shining skies and of flowers: who is above all that great reproductive principle, in whose action man's life has at once its consummation and its origin, and which in the love of the sexes partly unveils its mystery.

The main ideas which these attitudes severally represent are as follows: the first attitude represents faith, the sense of sin, self-chastisement; the second represents gnosis, power, self-discipline; the third represents beauty, love, self-fulfilment. The first is, as need hardly be said, the Christian. The second and third have been exemplified, either together or separately, in various movements and tendencies, and in the men who have led and represented them. So far as individuals are concerned, both were represented by Goethe; and

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Goethe may be taken as a symbol, though doubtless a very incomplete one, of the kind of religion with which, in some form or other, the Christian conception of religion will have hereafter to con-Indeed, both of the conceptions which Goethe united in himself Christianity has encountered already as animating two hostile movements, one of these being the Humanistic movement of the Renaissance, the other the Scientific movement of the past hundred years. Now both these, let the Churches view them as they may, have taught traditional Christianity one lesson at all events—namely. that it was too narrow to contain, recognize, and provide for many of the important elements of civilized human nature. Men having for centuries consented to look on the flesh as vile, woke as though from a dream to see that the limbs of Apollo had a glory of their own which was preferable to the grotesque emaciations of the anchorite. and Venus in marble and on canvas rose a second time from the sea. Men having been content for centuries to accept the explanation of the universe which ignorant authority had deduced from the legends of an Oriental tribe, began at last to seek for the truth of things by interrogating the universe itself; and the traditional cosmogony of the Churches collapsed like a house of cards. Churches by slow degrees have partially understood the situation, and have sought to regain their ascendency by making terms with the enemy; nor can it be said that their efforts have been wholly

without success. There is much in modern culture and there is much in modern science which by this time they have formally accepted and have actually been able to assimilate. The acceptance and the assimilation, however, are as yet partial only; and it remains to be seen how far they can be carried, without a surrender by Christians of all that is peculiar to their creed. Of main difficulties which Christianity will encounter in its efforts at selfexpansion are these: one may be summed up in the question of how far it will be possible for the educated modern mind to identify the Galilean carpenter, however noble his nature, with the universal cosmic Mind which has dwelt in all the nebulæ as they globed themselves into all the worlds. has animated the evolutionary feud through which the strong have survived the weak, and was the author of the very conditions under which he was put to death; the other may be summed up in the question of how far it will be possible for men, knowing what they now know of their origin, to look on themselves as a race degraded by some primeval fault of its own, and only able to escape by being sprinkled with a chemical compound, from the misfortune of deserving death for the involuntary crime of being alive.

If the contest were to lie between Christianity and no religion at all, or savage or sensual religions which were far worse than none, Christianity would in spite of its intellectual difficulties, need but little

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modification in order to insure its survival. But the case, as we have seen, is the very reverse of this. The Christian writer referred to at the beginning of the present chapter showed true insight when he said that the most formidable danger to Christianity will come not from the assaults of irreligion, but from a new religious eclecticism, which instead of seeking to destroy all the pearls of the Christian faith, will appropriate some of the choicest of them and place them in an alien setting. And such, no doubt, will be the course which the eclecticism of the future will take. It will appropriate from Christianity its humanitarian virtues, something of its spiritual exaltation, much of its spiritual refinement; but looking at the origin of man in the light of secular science, it will, while recognizing the existence and the riddle of evil, accept it as something which is to be outgrown rather than atoned for, and which God deplores on man's account rather than resents on His own; and will consequently make of religion a movement towards strength, beauty, and happiness, rather than a humble submission to the discipline of deserved pain.

Which type of religion is likely to prevail ultimately, it is entirely beyond the province of the present volume to discuss. I have sought here only to indicate the salient points of difference which will inevitably distinguish one type from the other. But whichever may prevail, one thing may be said with confidence—that it will prevail, no

matter whether it be Christian or non-Christian, owing to the same causes in virtue of which Christianity has prevailed hitherto. Christianity has prevailed for so many centuries and among so many nations, because, while its cosmogony, its anthropology, and its doctrinal system in general, has satisfied the human intellect during past conditions of knowledge, its moral and spiritual teaching has satisfied even more completely the moral and spiritual needs of all men, from kings to beggars. If it is to retain its ascendency, it must continue to fulfil the same functions; but in order to do this it must enlarge both its intellectual and its moral borders, purging its doctrines, on the one hand, of the now intolerable imagery derived from the old geocentric vision of things; and taking to its heart, on the other hand, ideals of knowledge, culture, mundane progress, and enjoyment, which hitherto it has but barely tolerated, when it has not positively denounced them. If Christianity fails to effect this self-enlargement—or in other words, in proportion to the strength of those civilizing impulses which it leaves unsanctioned and unprovided for—its ascendency will inevitably decline; and the new wine must be trusted to find for itself new bottles.

It is enough to say, in conclusion, that the arguments of the present volume, which aim solely at establishing the validity of religious belief in general, ought, so far as they meet with serious acceptance, to give a confidence both to those who

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defend Christianity, and who would supplant it, which is proportionate to the sincerity of the traditional faith of the one party, and of the religious anticipations, whether well or ill founded, of the other.

THE END

